TEQIP-III SPONSORED
FACULTY DEVELOPMENT PROGRAM
ON
"NANOTECHNOLOGY BASED GREEN ENERGY SOLUTION FOR SOLAR CELLS (NGESS-2020)"
SEPTEMBER 10-14, 2020

Organized by

Rajasthan Technical University, Kota

&

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

असतो मा सद्गमय

Host Institute

Department of Electronics & Communication Engineering

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur-302017

www.skit.ac.in

A
Report
on
Five Days
Faculty Development Program
Nanotechnology Based Green Energy Solution for Solar Cells
NGESS-2020
10th – 14th September 2020

Sponsored by TEQIP III

RTU Event Coordinator:

Dr. Deepak Bhatia

Host Institute Coordinators:

Dr. Swati Arora

Mr. Ravi Kumar Jangir

Organized By

Rajasthan Technical University, Kota

&

Swami Keshvanand Institute of Technology Management & Gramothan, Jaipur

Host Institute

Department of Electronics and Communication Engineering

Swami Keshvanand Institute of Technology Management & Gramothan, Jaipur

Approval Letter

Notice

No. RTU/TEQIP-II/F(56)/2020-21/4892-97 **Date: 05/08/20**

Hon'ble Vice-Chancellor is pleased to approve the FDP program to be conducted in online mode at the affiliated college under subhead 1.2.2.4 of RTU (ATU) TEQIP-III Action plan as per the mentioned Schedule.

RAJASTHAN TECHNICAL UNIVERSITY
Rawatbhata Road, Akelgarh, Kota-324 010
TEQIP III-RTU(ATU) OFFICE
Phone: 0744-2473060 Fax: 2473002 Email: rtuteqip@rtu.ac.in

No. RTU/TEQIP-III/F(56)/2020-21/ 4892-97 DATE:- 05/08/20

In continuation of office order RTU/TEQIP-III/F(56)/2018-19/4752-58 dated 10/07/2020, following dates and RTU coordinators are approved for the faculty development programmes (FDPs) mentioned as below.

RAJASTHAN TECHNICAL UNIVERSITY
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Phone: 0744-2473060 Fax: 2473002 Email: rtuteqip@rtu.ac.in

No. RTU/TEQIP-III/F(56)/2020-21/ 4892-97 DATE:- 05/08/20

	GRAMOTHAN				
54	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN	Machine Learning and Smart Electronic System	3	Mr. Riyaz Ahmad	3-5 Sept 2020
55	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN	Emerging Trends in Organic Electrnics	3	Dr. Shobi bagga	27-29 July 2020
56	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN	Nanotechnology Based Green Energy Solution for Solar cells	5	Dr Deepak Bhatia	10-14/09/2020
57	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN	Green Energy: The Energy of Future	5	Dr. Munish Bindal	7-11 Sept 2020
58	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN	Manufacturing and Recyclization of Engineering Materials-Cement,Glass and Ceramics-(Self-reliant India)	5	Mr. Shanti Lal Meena	10-14 Aug 2020

Objective of NGESS-2020

To provide Nano-technology based solutions for Solar cells and to study reliability implications and intricate modeling analysis of such devices for rapid commercialization. The aim of this FDP is to provide an exposure to both basics and recent advances in Nano-technology to the teaching and research communities.

- To introduce basics and recent advances in Nanotechnology
- Establishing the basic concept of Overview of Dye-Sensitized Solar Cells.
- Understanding the Basic concepts and Process of
- Micro/Nano fabrication techniques.
- Learning the various aspects of Solar Cell using Green Energy Solution.
- Solar cell using photonic
- Inorganic and Hybrid Solar Cell

FDP Program

- The program is split into various lectures.
- Assignment for enhanced learning.
- Interaction and learning with experts from academia.
- Certificate to the participants by TEQIP III and RTU Kota.

Content of the FDP

- Electromagnetic Energy: New Ideas, Harvesting and Power Transfer: An Overview and Futuristic
- Micro/Nano fabrication techniques: Basic concepts and Process
- Overview of Dye-Sensitized Solar Cells
- A point-of-care platform for preventive healthcare devices based on Micro nano technologies
- RF/Microwave Metamaterials
- Ceramic Nanomaterials
- Plasmonics enhanced Solar Cell
- Metamaterial Absorbers
- Development of CNTs based sensing Platform
- Inorganic & Hybrid Solar Cell
- Nanocrystalline based Solar Cells

Expert Details

1. **Dr. Chinmoy Saha**

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   Assistant Professor

   Indian Institute of Science, Bangalore

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4. **Prof. Parag Bhargava**
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8. **Dr. Praveen Kumar Jain**
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9. **Dr. Amartya Chowdhury**
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Event Coordinator

Dr. Deepak Bhatia

(RTU Event Coordinator)

Assistant Professor

Electronics and Communication Engineering Department

University Departments, Rajasthan Technical University, Kota

Host Institute Co-Ordinator Details

1. **Dr. Swati Arora**
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   Department of Electronics and Communication Engineering

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2. **Mr. Ravi Kumar Jangir**
   Assistant Professor

   Department of Electronics and Communication Engineering

   Swami Keshvanand Institute of Technology Management and Gramothan, Jaipur

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Resource Person

The Various sessions of the FDP preceded by the experts from IITs, NITs and other reputed institutes.

Registration Fee

There is No Registration Fee.

Targeted Audience

Faculty of various engineering institutes affiliated to Rajasthan Technical University, Bikaner Technical University and other academic institutions.

FDP Schedule

RAJASTHAN TECHNICAL UNIVERSITY, KOTA
SWAMI KESHVANAND INSTITUTE of TECHNOLOGY, MANAGEMENT & GRAMOTHAN, JAIPUR
TEQIP-III RTU (ATU) SPONSORED

Five days Faculty Development Programme

on

Nanotechnology Based Green Energy Solution for Solar Cells

(10/09/2020 to 14/09/2020)
VENUE: SKIT M& G, Jaipur

TENTATIVE PROGRAMME

DAY/ DATE	SESSION I	SESSION II
THRUSDAY 10-09-2020	**Online Inauguration** (09:30 AM -10:00 AM) Electromagnetic Energy: New Ideas, Harvesting and Power Transfer: An Overview and Futuristic Concepts (10:00 AM – 12:00 PM) **Expert – Dr. Chinmoy Saha** **IISST,Kerala** **Expert (Co-Speaker)- Dr. Debdeep Sarkar** **IISc Bangalore**	Micro/Nano fabrication techniques: Basic concepts and Process (12:30 PM – 02:00 PM) **Expert – Dr. Prabhat Dwivedi** **IIT Kanpur**
FRIDAY 11-09-2020	Overview of Di-Sensitized Solar Cells (10:00 AM – 11:30 AM) **Expert – Prof. Parag Bhargava** **IIT Bombay**	A point-of-care platform for preventive healthcare devices based on Micro-nano technologies (12:30 PM – 02:00 PM) **Expert – Dr. Prabhat Dwivedi** **IIT Kanpur**

SATURDAY 12-09-2020	RF/Microwave Metamaterials (10:00 AM – 11:30 AM) **Expert – Dr. Raghvendra Kumar Chaudhary** **IIT Dhanbad**	Ceramic Nanomaterials (12:30 PM – 02:00 PM) **Expert – Prof. Parag Bhargava** **IIT Bombay**	Plasmonics enhanced Solar Cell (2:30 PM – 3:30 PM) **Expert –Dr. Rukhsar Zafar** **SKIT Jaipur**
SUNDAY 13-09-2020	Metamaterial Absorbers (10:00 AM – 11:30 AM) **Expert – Dr. Raghvendra Kumar Chaudhary** **IIT Dhanbad**	Development of CNTs based sensing Platform (12:30 PM – 02:00 PM) **Expert – Dr. Pankaj Agrawal** **Ceeri, Pilani**	
MONDAY 14-09-2020	Inorganic & Hybrid Solar Cell (10:30 PM – 11:30 PM) **Expert -Dr. Praveen Kumar Jain** **SKIT Jaipur**	Nanocrystalline based Solar Cells (12:00 PM – 1:30 PM) **Expert -Dr. Amartya Chowdhury** **MNIT Jaipur**	Feedback & Valedictory Session (02:00 PM – 03:00 PM) **All Resource Persons, Dignitaries, Coordinators, Faculty Members and Participants**

Dr. Deepak Bhatia
RTU Coordinator

Dr. Swati Arora
Mr. Ravi Kumar Jangir
(SKIT Coordinator)

Signature & seal
Head of Institute

PRINCIPAL
Swami Keshvanand Institute of Technology, Management & Gramothan
Ramnagaria (Jagatpura), JAIPUR-302017

List of Participants

S.No.	Salute	Participant Name	Designation	Department	Institute
1	Mr.	A.Anwar Basha	Assistant	EEE	Aalim muhammed salegh college of engineering
2	Mr.	A.Balamurugan	Assistant Professor	EEE	VINAYAKA MISSIONS KIRUPANADA VARIYAR ENGINEERING COLLEGE
3	Ms.	A.C.Jinisha	Assistant professor	ECE	SXCCE
4	Mr.	AAMIR KHAN	assistant professor	computer science	Glocal university
5	Mr.	Abdul Naim Khan	Ph.D. Research Scholar	Electronics & Communication Engineering	The LNM Institute of Information Technology, Jaipur
6	Ms.	Abha Sharma	Assistant Professor	Electronics & Communications	Arya College of Engineering and Research Centre
7	Mr.	Abhinandan Jain	Assistant Professor	ECE	SKIT,JAIPUR
8	Mr.	ABILASH S	Assistant Professor	Mechanical Engineering	St. Peter's College of Engineering and Technology
9	Mr.	Abinash Mishra	Lecturer	ECE	Government polytechnic Dhenkanal
10	Ms.	Abreeque Faryal	Lecturer	Computer Science	ILMA University
11	Dr.	Absa S	Assistant Professor	ECE	St.Xavier's Catholic College of Engineering
12	Mr.	Akhil misra	Student	Electronics and communication	Hbtu kanpur
13	Ms.	Amandeep Kaur	Assistant Professor	Computer Science	Sri Guru Granth Sahib World University
14	Mr.	Amit Kumar Bansal	Asso.Prof.	ME	SKIT
15	Mr.	AMIT SHARMA	Associate Professor	ECE	Arya College Of Engineering & I.T.
16	Mr.	ANAND S	LECTURER	MECHANICAL ENGINEERING	IRT POLYTECHNIC COLLEGE, CHROMEPET,CHENNAI
17	Mr.	Ananta Kumar Sahoo	Assistant professor	Electrical Engineering	Synergy institute of engineering and technology
18	Ms.	Anju Rajput	Assistant Professor	Electronics and communication	Jaipur Engineering College and Research Center
19	Mr.	Ankit Agarwal	Assistant Professor	Electronics and Communication	Swami Keshvanand Institute of Technology, Management & Gramothan
20	Mr.	Ankit Garg	Assistant professor	Computer science and engineering	Amity university haryana
21	Ms.	ANU SAYAL	ASSISTANT PROFESSOR	MANAGEMENT	UTTARANCHAL UNIVERSITY
22	Ms.	Anuradha	Assistant professor	ECE	agra college
23	Prof.	Archana	Saxena	Chemistry	Swami Keshvanand Institute of Technology Management and Gramothan
24	Mr.	Arun Beniwal	Assistant Professor	Mechanical Engineering	SKIT

25	Mr.	Arun Kandukuri	Assistant Professor	Mechanical Engineering	Sri Venkateswara college of Engineering
26	Dr.	Arun Kumar Sivaraman	Assistant Professor (Sr. Grade)	Computer Science and Engineering	VIT University
27	Mr.	Arvind Sharma	Assistant Professor	Computer Science and Engineering	Modern Institute of Technology and Research Centre
28	Mr.	Ashish Kulshrestha	Assistant Professor	Electronics & Communication Engineering	JECRC
29	Mr.	Atul Soni	Assistant Professor	Electrical Engineering	Arya Institute of Engineering and Technology
30	Mr.	Bablu Kumar Singh	Assistant Professor	Electronics and Communication	MBM Engineering College, JNVU Jodhpur
31	Ms.	BAIJAYANTI PANDA	Manager	Electrical engineering	Konark institute of science and technology
32	Mr.	Bikasha kumar Garnayak	Assistant professor	Electrical engineering	IGIT SARANG
33	Ms.	BINODINEE SWAIN	Assistant professor	Electrical Engineering	Indira Gandhi institude of Technology,sarang
34	Ms.	Brindha S	Assistant Professor	Business Administration	Government Arts and Science College Sivakasi West
35	Ms.	C.SHEEJA HEROBIN RANI	Assistant Professor	ECE	St.Xavier's Catholic College of Engineering
36	Mr.	CHANDAN KUMAR BARICK	DIRECTOR	ELECTRICAL ENGINEERING	GENESIS ENGINEERING
37	Ms.	Chandra chaturvedani	Student	Et&t	Kalinga university
38	Mr.	Chandra Mohan Kumar	Assistant professor	Mechanical	SKIT Jaipur
39	Mr.	Chandra Prakash Gupta	Assistant professor	ECE	Manipal university Jaipur
40	Prof.	Chetan Khemraj	Professor	Electrical engineering	Sri Balaji college of engineering and technology Jaipur
41	Prof.	Chetan Khemraj	Professor	Electrical engineer ing	Sri Balaji college of engineering and technology Jaipur
42	Mr.	Chinmaya Ranjan Pradhan	Assistant Professor	EEE	NM Institute Of Engineering and Technology
43	Ms.	Cola Pushpanjali	Senior Lecturet	Biochemistry	SRM Dental College
44	Dr.	D vijaya kumar	Professor	EEE	Aditya Institute of Techonolgy and Management Tekkali
45	Dr.	D.KALAIVANI	Professor and Head	Computer Technology	Dr.SNS Rajalakshmi College of Arts and Science
46	Mr.	Debswarup Rath	Research Scholar	Electrical Engineering	Siksha'O'Anusandhan University

47	Mr.	Deepak	Research Scholar	Computer Science and Engineering	UTTARAKHAND TECHNICAL UNIVERSITY DEHRADUN
48	Mr.	Deepak bairagi	Hindu	Electrical engineering	Gyan ganga institute of technology and science jabalpur
49	Mr.	Deepak Saini	assistant professor	Electrical	SKIT jaipur
50	Mr.	Deepak Shankhala	Asst.professor	ECE	JECRC
51	Mr.	Dinesh vishwakarma	Yes	Mechanical engineering	RITM LUCKNOW
52	Mr.	Durgesh Kumar Mishra	PhD Scholar	Mechanical Engineering	NIT Silchar
53	Ms.	E.Kalpana	Lecturer	ECE	P.T.LEE CHENGALVARAYA NAICKER POLYTECHNIC COLLEGE
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56	Mr.	GAJULA SRI VENKATA RAMA ABHISHEK	Assistant professor	Computer Science And Engineering	BHIMAVARAM INSTITUTE OF ENGINEERING AND TECHNOLOGY
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59	Mr.	Girish Parihar	HOD	Electrical	POLYSKILL Pvt ITI
60	Ms.	Gloria Joseph	Assistant professor	EC	SKIT
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67	Mr.	JAYANTA KUMAR SAHU	ASSISTANT PROFESSOR	EEE	IIIT BHUBANESWAR
68	Dr.	Jaykumar Shantilal Patel	Professor	MCA	Chaudhari Technical Institute - Gandhinagar
69	Mr.	Jayprakash Vijay	Accociate Professor	ECE	SKIT

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73	Mr.	Kamal Kulshreshtha	Associate Professor	Computer Application	Modi Institute of Management & Technology
74	Mr.	KIRAN BABAJIRAO SALUNKE	Lecturer in mechanical engineering department	Mechanical engineering department	Government polytechnic Thane
75	Ms.	Kiran Rathi	Associate professor	ECE	SKIT
76	Prof.	Krishna Chandra Roy	Professor	Electrical Engineering	Kautilya institute of technology and engineering
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78	Mr.	KRUSHNA CHANDRA SAHOO	ASSISTANT PROFESSOR	ELECTRICAL ENGINEERING	DRIEMS AUTONOMOUS ENGINEERING COLLEGE
79	Mr.	Kuldip Raj Sharma	Head of Deptt.	Mech.Engg.	YCET
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91	Mr.	MANOHAR JAYAMPU	Associate Professor	ECE	AUDISANKARA INSTITUTE OF TECHNOLOGY GUDUR
92	Mr.	Manoj Kumar	Assistant professor	Mechanical	Skit Jaipur
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98	Mr.	Mohd Azam	assistant professor	civil engineering	Glocal university
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103	Ms.	Namrata Joshi	Assistant professor	ECE	SKIT
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106	Mr.	Naveen Rooba Doss M	Assistant professor	Nanotechnology Division, Department of ECE	Periyar Maniammai Institute of Science and Technology Thanjavur
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109	Mr.	Neeraj jain	Assistant professor	Ece	SKIT, jaipur
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113	Ms.	P. Venkateshwari	Assistant professor	Electronics and communication engineering	GB PANT GOVT.ENGINEERING COLLEGE
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117	Mr.	Pankaj Bansal	Assistant professor	Electronics	Maharishi Arvind Engineering College
118	Mr.	Pankaj Sahu	Research Scholar	ECE	SoET, BML Munjal University
119	Dr.	Pawan Bhambu	Professor	CSE	Arya college of engg & IT Jaipur.
120	Prof.	Payal S. Burande	Asst. Prof.	Electrical	D.Y.Pati Institute of Engineering and Technology.
121	Ms.	Pooja Choudhary	Assistant Professor	Electronics and Communication Department	Swami Keshvanand Institute of Technology Management and Gramothan, Jaipur
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123	Ms.	Poonam Kumari	Student	Electrical engineering	Kalinga University
124	Dr.	Pradeep Kumar Dubey	Assistant Professor	Physics	Shri Ram Institute of Technology
125	Mr.	PRAKASH CHANDRA DAS	LECTURER (PTGF)	Electronics and Telecommunication Engineering	Government Polytechnic Balasore, Odisha
126	Dr.	Prakhar Jindal	Assistant Professor	Aerospace Engineering	Amity University Haryana
127	Mr.	Pramod Jain	Assistant professor	ME	Skit
128	Mr.	PRATIK BHANSALI	Assistant Professor	Electrical Engineering	Jodhpur Institute of Engineering & Technology
129	Mr.	Praveen Tripath8	Assistant Professor	Computer Application	SGRR University
130	Mr.	Pravin Kumar Sharma	AP	ECE	JECRC
131	Ms.	Priya Chaudhary	Assistant Professor	ECE	Arya Institute of Engineering and Technology
132	Ms.	Priya Singh	Assistant Professor	Electronics and communication Engg	SRMGPC, LUCKNOW
133	Ms.	Priyadharshini	Research Scholar	Electronics and Instrumentation	Bharathiar University
134	Ms.	Priyanka Gupta	Lecturer	Mechanical Engineering	Govt Polytechnic College Alwar
135	Mr.	Pruthwijeet Patnayak	GET trainee	Electrical engineering	Npti Nagpur
136	Mr.	PULIDINDI VENKATA RATNAM	Associate Professor	ECE	Rajamahendri Institute of Engineering and Technology
137	Ms.	Pushpa Gothwal	Assistant professor	ECE	Amity University Rajasthan
138	Dr.	R. PALANIYAPPA	LECTURER	MATHEMATICS	I. R. T. POLYTECHNIC COLLEGE

139	Ms.	R.BALAKRISHNAN	Assistant Professor	ECE	KINGS COLLEGE OF ENGINEERING
140	Mr.	Rachit Patel	Assistant Professor	ECE	ABES Institute of Technology, Ghaziabad
141	Dr.	RAGHAVENDRA PATIDAR	Professor	Electronics & Communication Engineering	Global Institute of Technology, Jaipur
142	Mr.	Rahul Pandey	Assistant Professor	ECE	SKIT jaipur
143	Mr.	RAHUL SHARMA	Assistant Professor	Mechanical Engineering	Poornima College of Engineering, Jaipur Rajasthan
144	Mr.	Rajesh kanna s	Assistant Professor	Electrical and electronics engineering	Aalim Muhammed Salegh College Of Engineering
145	Mr.	RAJESH KANWADIA	Assistant Professor	Electronics and Communication	Shankara Institute of Technology
146	Dr.	Rajesh Kumar Bathija	Associate Professor	ECE	JECRC Jaipur
147	Ms.	Rajni Idiwal	Assistant professor	ECE	Skit, Jaipur
148	Mr.	Rakesh Kumar Kardam	Assistant professor	ECE	JECRC, jaipur
149	Mr.	RAKESH RANJAN	ASSISTANT PROFESSOR	Computer Science	SHANKARA INSTITUTE OF TECHNOLOGY
150	Mr.	Rameez Raja K	Assistant Professor	EEE	Aalim Muhammed Salegh College of Engineering
151	Ms.	Rammurti Meena	Assistant professor	EE	Swami Keshwanand Institute of technology management and gramothan Jaipur
152	Mr.	RANCHITH KUMAR P	Assistant professor	Electronics and communication Engineering	University college of Engineering Arani
153	Ms.	Ranjana trivedi	Associate professor	ECE	JIET group of institutions
154	Dr.	Rashmi Jain	Assistant professor	E&TC	DYPIT PIMPRI PUNE
155	Mr.	Reynolds Duddu	Assistant Professor	Electronics and Telecommunicati on Engineering	Bhilai Institute of Technology Durg
156	Ms.	Richa Sharma	Assistant Professor	ECE	SKIT College
157	Ms.	Ritambhara	Assistant professor	ECE	JECRC
158	Mr.	Ritesh vishwakarma	Assistant professor	Electronics and Communication Engineering	Bundelkhand university
159	Mr.	Rohan	Chandela	Department of physics	L.N.M.U
160	Mr.	Rohit Anand	Assistant Professor	ECE	G.B.Pant Engineering College, New Delhi
161	Ms.	Rosalin Pradhan	Assistant Professor	Electrical Engineering	Indira Gandhi Institute of Technology,Sarang
162	Ms.	Ruchi Sharma	Assistant Professor	Computer Science	B K Birla Institute of Engineering and Technology (BKBIET)-PILANI

163	Dr.	S SRINIVASULU RAJU	Assistant Professor	EIE	Velagapudi Ramakrishna Siddhartha Engineering College
164	Ms.	S. CAROLINE	Assistant Professor	ECE	St. Xavier's Catholic College of Engineering
165	Mr.	S. Edwin Lawrence	Assistant Professor	ECE	St.Xavier's Catholic College of Engineering
166	Prof.	S. K. Bhatnagar	Director (Research)	ECE	SKIT
167	Dr.	S. MARIA SERAPHIN SUJITHA	Assistant Professor	ECE	St.Xaviers Catholic College of Engineering
168	Mr.	S. P. Santhoshkumar	Assistant Professor	CSE	Rathinam Technical Campus
169	Mr.	S. VIJAYA RAJU	DGM	ONGC	JNTU
170	Mr.	S.Kannadhasan	Assistant Professor	Electronics and Communication Engineering	Cheran College of Engineering
171	Mr.	S.MANGALESWARA BOOPATHY	Sales manager	Electrical	BK POWER
172	Mr.	S.SIVAKUMAR	Assistant Professor	EEE	RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY, PUDUCHERRY
173	Dr.	S.SRINATH	Professor	EEE	Velammal Engineering College,Chennai
174	Ms.	Saambhavi Barthwal	Student	ECE	NMIT
175	Dr.	Sachin Agrawal	Assistant Professor	Computer Science and Engineering	College of Engineering and Technology, Akola
176	Mr.	Sandeep Kumar Jain	Associate Professor	Electronics and Communication Engineering	Vivekananda Global University
177	Dr.	SANDIP D SATAV	Associate Professor	Information Technology	JSPM's Jayawantrao Sawant COE Pune 411028
178	Dr.	Sanjiv Mishra	Professor	ECE	Allenhouse Institute of Technology
179	Ms.	Santhiya.G	Assistant professor	Computer Science and Engineering	Stella Mary's College of Engineering
180	Mr.	Sarabjeet Singh	Assistant Professor	Computer Science	Swami Keshvanand Institute of Technology, Management & Gramothan
181	Prof.	SARIKA ATUL PATIL	Assistant Professor	Electronics and Telecommunication	Dr.D.Y.Patil Institute of Technology, Pimpri , Pune, Maharashtra
182	Prof.	Satyaprakash Rout	Assistant Professor	Electrical Engineering	DRIEMS AUTONOMOUS
183	Mr.	SATYENDRA PRASAD	Student	Electronics engineering	DR AITH KANPUR
184	Mr.	Saurabh Gupta	Assistant professor	Mechanical Engineering	SKIT JAIPUR

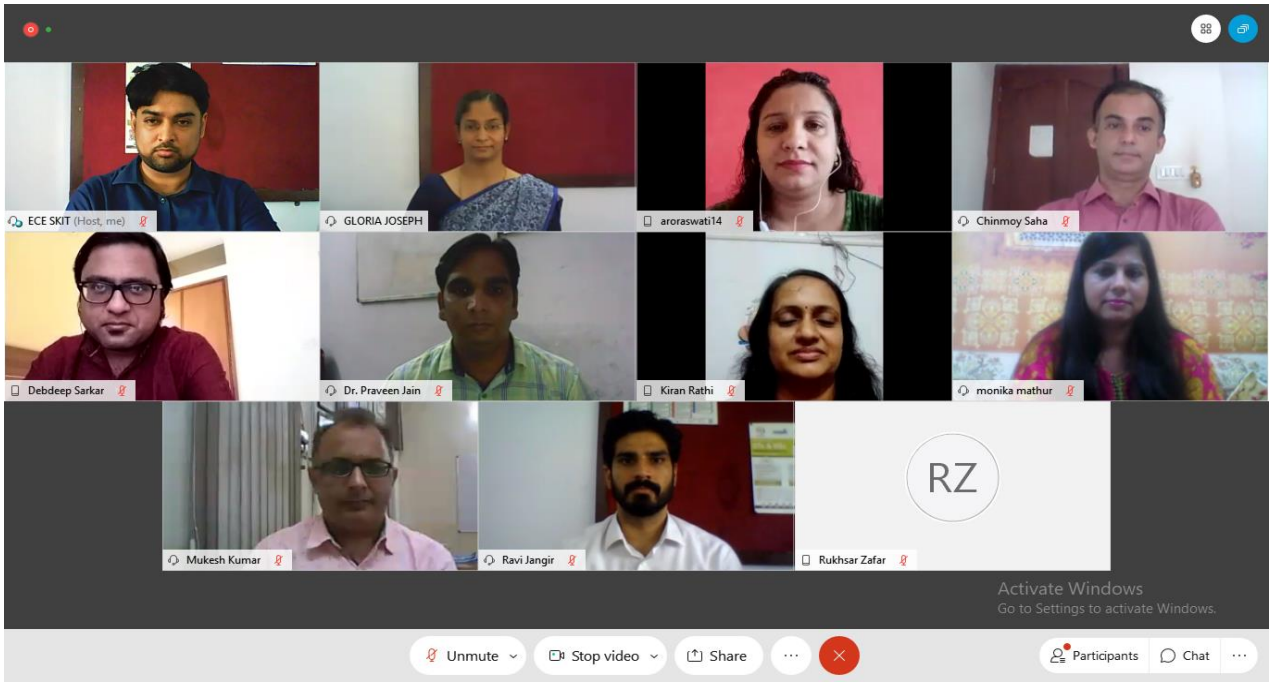
185	Mr.	SHAHURAJ SHANKAR SABLE	Assistant professor	Electrical	DYPATIL INSTITUTE of ENGINEERING and TECHNOLOGY ,AMBI ,PUNE
186	Ms.	Shanthi	Assistant Professor	Chemistry	Dmi college of Engineering
187	Ms.	SHARMISTHA BANERJEE	Asst Professor	MCA	Mckv Institute of Engineering
188	Mr.	Shashikumar Rathod	Student	Electrical and electronics engineering	Basaveshwara engineering College bagalkot Karnataka
189	Mr.	Shradhendu Pradhan	Student	Electronic and Telecommunication	Ajay Binay institute of technology, Cuttack
190	Ms.	SHRUTI KALRA	Associate Professor	Electronics and Communication Engineering	JAIPUR ENGINEERING COLLEGE and RESEARCH CENTER JAIPUR
191	Mr.	SHUBH KARAN SAINI	Teaching assistant	ECE	GIT sitapura Jaipur
192	Dr.	Shubhi Jain	Assistant Professor	ECE	Skit College
193	Ms.	Shweta Agrawal	Assistant professor	Electronic and communications	Shankara institute of technology kukas jaipur
194	Prof.	Shweta Desai	Assistant Professor	Electrical	D Y Patil University, Ambi, Pune
195	Ms.	Shwetapadma Panda	Junier Research Fellow	ECE	National Institute of Science and Technology, Berhampur
196	Mr.	Siringi Raja Rishyant	-Not yet working-	-N/A-	Vellore Institute of Technology
197	Mr.	SIVAKUMAR R D	Assistant Professor	Computer Science	Ayya Nadar Janaki Ammal College Sivakasi West
198	Dr.	Smita Pareek	Associate Prof	EE	BKBIET Pilani
199	Ms.	Sneh Lata Yadav	Assistant Professor	ECE	Shankara Institute of Technology, Kukas, Jaipur, Rajasthan
200	Mr.	Sudarshan Kumar Jain	Assistant Professor	ECE	Jagannath University
201	Mr.	Sudhanshu Singh	Assistant Professor	ECE department	Amity University Rajasthan
202	Mr.	Sudhansu Sekhar Behera	Asst. Professor	ECE	MVGRCE(A)
203	Dr.	Sujit Kumar	Assistant Professor	Electrical and Electronics Engineering	Jain Deemed to be University, Bengaluru
204	Ms.	Suman Sharma	Assistant professor	IT	SKIT, JAIPUR
205	Mr.	Sunil Kumar	Assistant Professor	Electronics & Communication	Shri Bhawani Niketan Institute of Technology & Mgmt
206	Mr.	Sunil lakhawat	Asst professor	Ece	Skit jaipur
207	Ms.	Supriya Suresh Bondre	Assistant professor	E&TC	SMSMP ITR, Akluj

208	Mr.	Sushant Khedgikar	Dean - Academics	Electronics and Telecommunications	P. E. S. College of Engineering
209	Ms.	Sushila Vishnoi	Associate Professor	Information Technology	Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT Jaipur)
210	Mr.	Syed Vasiyullah	Assistant professor	EEE	Aalim Muhammed Salegh college of engg
211	Dr.	T.Jaya	Assistant Professor	ECE	Vels Institute of Science, Technology & Advanced Studies (VISTAS)
212	Mr.	TELAGAMALLA GOPI	ASSISTANT PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING	ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES HYDERABAD
213	Ms.	Tripti Dua	Assistant Professor	Electronics and Communication	JECRC Foundation
214	Dr.	Tushar Hrishikesh Jaware	Assistant Professor	E&TC	R C Patel Institute of Technology Shirpur
215	Mr.	Umesh Paliwal	Assistant Professor	Mechanical Engineering	MITS, Jadan
216	Ms.	USHA JAIN	Associate Professor	Computer Applications	Modi Institute of Management & Technology, Kota
217	Dr.	V. BHUVANESHWARI	Associate professor and Head	Biotechnology UG	Kongunadu Arts and Science College
218	Mr.	V. KANAGASUBRAMANIAN	Assistant professor	EEE	Mangayarkarasi college of Engineering
219	Ms.	VANAMALA S	Lecturer	Electronics and Communication Engineering	P.T.Lee Chengalvaraya Naicker Polytechnic College, Tamil Nadu
220	Dr.	VIJAYALAKSHMI .P	Asst. Professor	ECE	Vels Institute of Science, Technology & Advanced Studies (VISTAS)
221	Dr.	Vikas Misra	Professor	Mechanical Engineering	Geetanjali Institute of Technical Studies Udaipur
222	Mr.	Vikas Ranveer Singh Mahala	Assistant Professor	Electrical Engineering	SKIT Jaipur
223	Mr.	Vishal D. Bharate	Assistant Professor	Electronics and Telecommunication	Sinhgad Academy of Engineering, Pune
224	Dr.	VISHAL SHRIVASTAVA	PROFESSOR	COMPUTER SCIENCE AND ENGINEERING	ARYA COLLEGE OF ENGINEERING AND IT,JAIPUR
225	Mr.	Vishnu Jangid	Assistant professor	Mechanical Engineering	SKIT Jaipur
226	Mr.	VIVEK BHOJAK	Head	ECE	Anand International College of Engineering, Jaipur

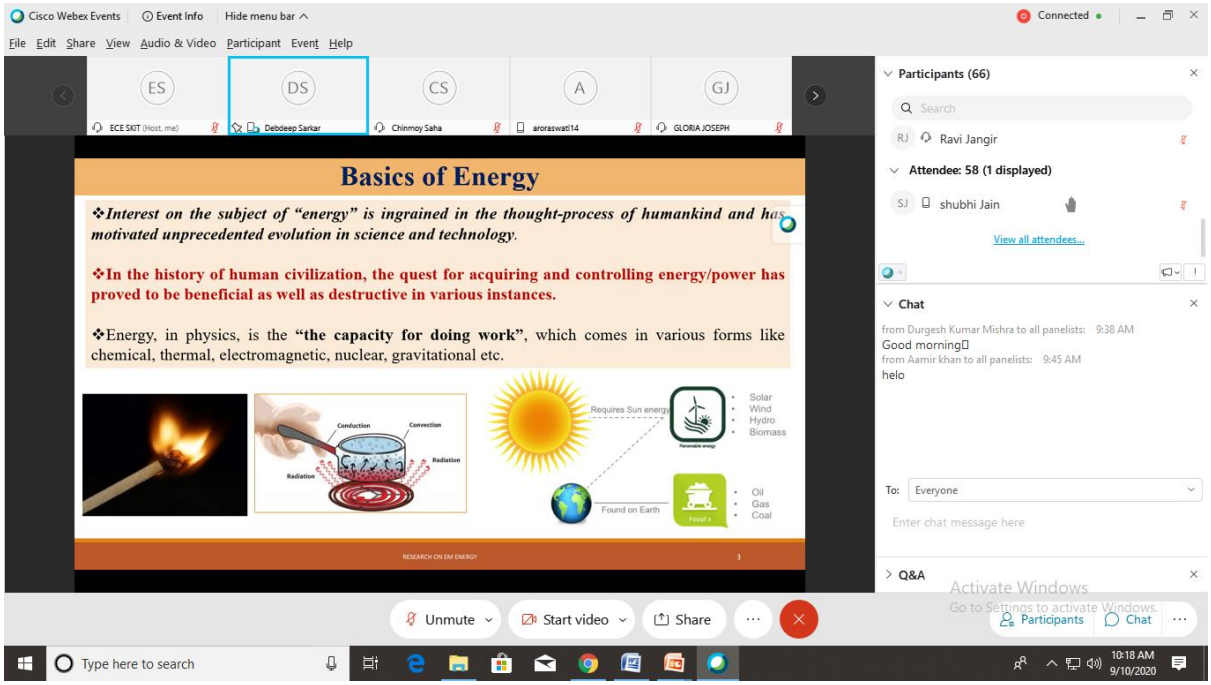
227	Mr.	Vivek Sharma	Assistant Professor	Electrical Engineering	SKIT jaipur
228	Dr.	Y.MARY REEJA	AP	ECE	St Xavier's Catholic College of Engineering
229	Mr.	Yash kumar	Student	ECE	Swami keshvanand institute of technology
230	Ms.	Yashika Saini	Assistant Professor	ECE	AIET
231	Ms.	Yazusha sharma	A. P.	Ece	Jecrc
232	Dr.	Yogesh Sharma	Professor	Mathematics	Mahila PG College Jodhpur
233	Ms.	Yogita	Assistant professor	ECE	Jecrc
234	Mr.	Yuvaraj A	Assistant Professor	EEE	Aalim Muhammed Salegh College of Engineering

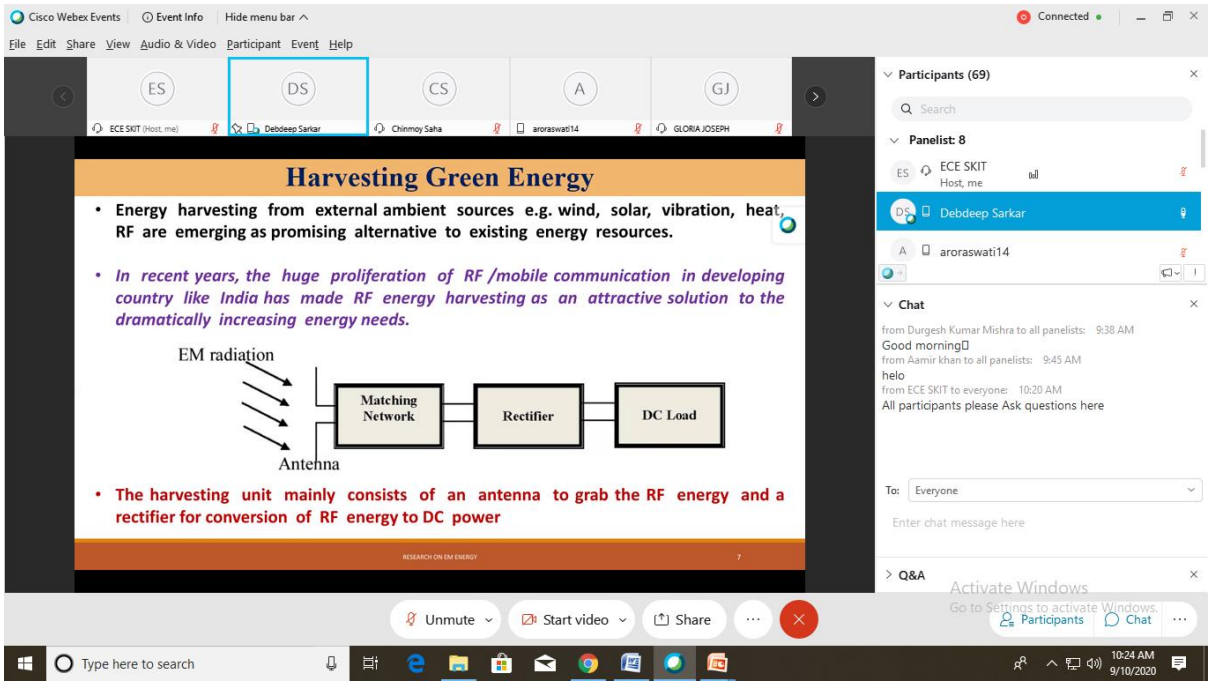
Event Photographs

1. Inauguration



2. Day 1

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Event Info
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ES DS CS A GJ
ECE SKIT (Host, me)
Debdeep Sarkar
Chinmoy Saha
aroraswati14
GLORIA JOSEPH
Harvesting Green Energy
• Energy harvesting from external ambient sources e.g. wind, solar, vibration, heat, RF are emerging as promising alternative to existing energy resources.
• In recent years, the huge proliferation of RF /mobile communication in developing country like India has made RF energy harvesting as an attractive solution to the dramatically increasing energy needs.
EM radiation
Matching Network
Rectifier
DC Load
Antenna
• The harvesting unit mainly consists of an antenna to grab the RF energy and a rectifier for conversion of RF energy to DC power
RESEARCH ON EM ENERGY 7
Participants (69)
Search
Panelist: 8
ECE SKIT Host, me
Debdeep Sarkar
aroraswati14
Chat
from Durgesh Kumar Mishra to all panelists: 9:38 AM
Good morning
from Aamir khan to all panelists: 9:45 AM
helo
from ECE SKIT to everyone: 10:20 AM
All participants please Ask questions here
To: Everyone
Enter chat message here
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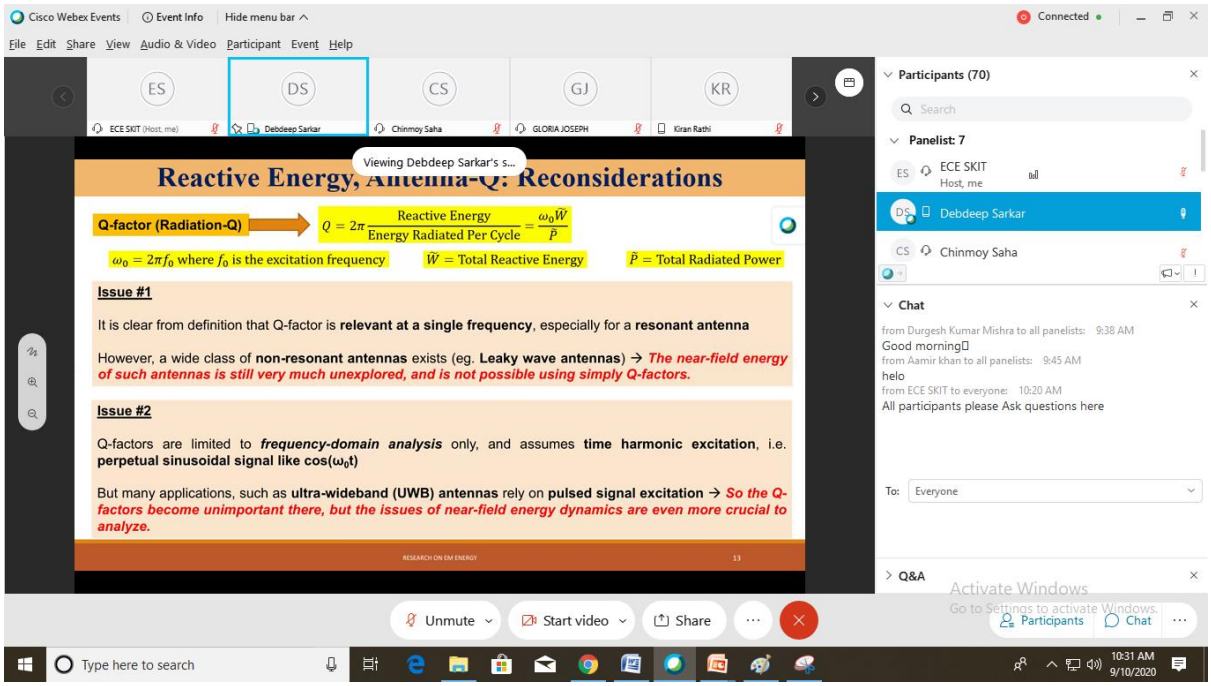
10:24 AM
9/10/2020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ES DS CS GJ KR
ECE SKIT (Host, me)
Debdeep Sarkar
Chinmoy Saha
GLORIA JOSEPH
Kiran Rathi
Viewing Debdeep Sarkar's s...
Reactive Energy, Antenna-Q: Reconsiderations
Q-factor (Radiation-Q)
$Q = 2\pi \frac{\text{Reactive Energy}}{\text{Energy Radiated Per Cycle}} = \frac{\omega_0 \bar{W}}{\bar{P}}$
$\omega_0 = 2\pi f_0$ where f_0 is the excitation frequency
$\bar{W}$ = Total Reactive Energy
$\bar{P}$ = Total Radiated Power
Issue #1
It is clear from definition that Q-factor is relevant at a single frequency, especially for a resonant antenna
However, a wide class of non-resonant antennas exists (eg. Leaky wave antennas) → The near-field energy of such antennas is still very much unexplored, and is not possible using simply Q-factors.
Issue #2
Q-factors are limited to frequency-domain analysis only, and assumes time harmonic excitation, i.e. perpetual sinusoidal signal like cos(ω0t)
But many applications, such as ultra-wideband (UWB) antennas rely on pulsed signal excitation → So the Q-factors become unimportant there, but the issues of near-field energy dynamics are even more crucial to analyze.
RESEARCH ON EM ENERGY 13
Participants (70)
Search
Panelist: 7
ECE SKIT Host, me
Debdeep Sarkar
Chinmoy Saha
Chat
from Durgesh Kumar Mishra to all panelists: 9:38 AM
Good morning
from Aamir khan to all panelists: 9:45 AM
helo
from ECE SKIT to everyone: 10:20 AM
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ES DS Chinmoy Saha GJ M RJ

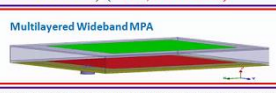
ECE SKIT (Host, me) | Debdeep Sarkar | Chinmoy Saha | GLORIA JOSEPH | monika mathur | Ravi Jangir

Viewing Chinmoy Saha's scr...

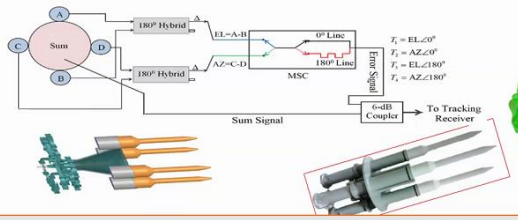
IIST-ISRO Collaborative Projects

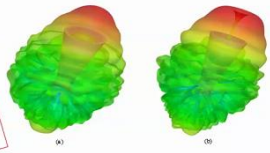
Design and Implementation of a Compact Wideband Microstrip Patch Antenna (IIST/RDP/11/2014) **(VSSC, Trivandrum)**

Multilayered Wideband MPA



Design and Implementation of Integrated Tri-Band Monopulse Auto-Tracking Feed for LEO Satellites **(NRSC, Hyderabad)**





Participants (73)

Search

Panelist: 6

ECE SKIT Host, me

Chinmoy Saha

Debdeep Sarkar

Chat

feedback link?
from ECE SKIT to everyone: 11:14 AM
Attendance link will be avaible at google classroom at 1 PM
from ECE SKIT to everyone: 11:15 AM
feedback link will be shared on 14 Sept
from GANESH (privately): 11:15 AM
ok Sir

To: Everyone

Q&A

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ES DS Chinmoy Saha GJ M RJ

ECE SKIT (Host, me) | Debdeep Sarkar | Chinmoy Saha | GLORIA JOSEPH | monika mathur | Ravi Jangir

Viewing Chinmoy Saha's scr...

Harvesters

Source	Power density	Harvesting Technology	Advantages	Disadvantages
Solar	Indoor: 10 $\mu W/cm^2$ Outdoor: 10 mW/cm^2	Photovoltaic	High power density Mature	Not always available Required exposure to light (not implantable) Expensive
Vibration	Human: 4 $\mu W/cm^2$ Industrial: 100 $\mu W/cm^2$	Piezoelectric Electrostatic Electromagnetic	Implantable High efficiency	Not always available Material physical limitation
Thermal	Human: 30 $\mu W/cm^2$ Industrial: 1–10 mW/cm^2	Thermoelectric Pyroelectric	High power density Implantable	Not always available Excess heat
RF	GSM: 0.1 $\mu W/cm^2$ WI-FI: 1 mW/cm^2	Antenna	Always available Implantable	Low density Efficiency inversely proportional to distance

Participants (69)

Search

Panelist: 6

ECE SKIT Host, me

Chinmoy Saha

Debdeep Sarkar

Chat

feedback link?
from ECE SKIT to everyone: 11:14 AM
Attendance link will be avaible at google classroom at 1 PM
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feedback link will be shared on 14 Sept
from GANESH (privately): 11:15 AM
ok Sir

To: Everyone

Q&A

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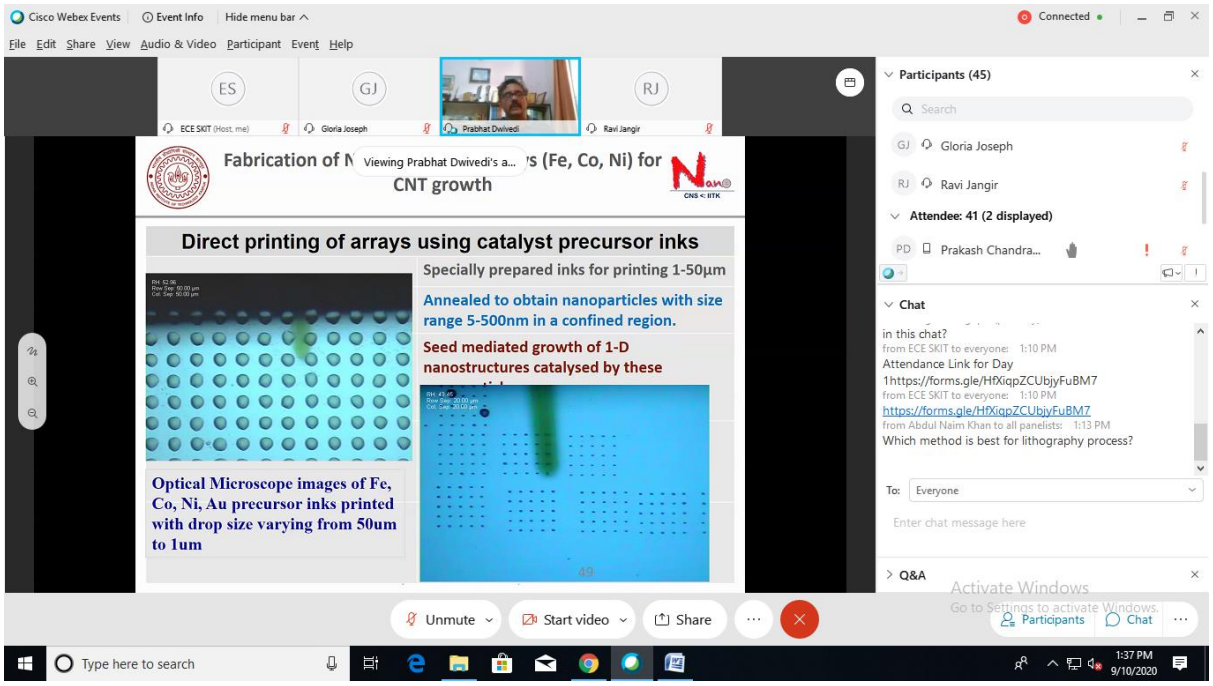
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ECE SKIT (Host, me)
Gloria Joseph
Prabhat Dwivedi
Ravi Jangir
Viewing Prabhat Dwivedi's a...
Fabrication of N
's (Fe, Co, Ni) for
CNT growth
Direct printing of arrays using catalyst precursor inks
Specially prepared inks for printing 1-50µm
Annealed to obtain nanoparticles with size range 5-500nm in a confined region.
Seed mediated growth of 1-D nanostructures catalysed by these
Optical Microscope images of Fe, Co, Ni, Au precursor inks printed with drop size varying from 50um to 1um
Participants (45)
Search
Gloria Joseph
Ravi Jangir
Attendee: 41 (2 displayed)
Prakash Chandra...
Chat
in this chat?
from ECE SKIT to everyone: 1:10 PM
Attendance Link for Day
1https://forms.gle/HfXiqpZCUbjyFuBM7
from ECE SKIT to everyone: 1:10 PM
https://forms.gle/HfXiqpZCUbjyFuBM7
from Abdul Naim Khan to all panelists: 1:13 PM
Which method is best for lithography process?
To: Everyone
Enter chat message here
Q&A
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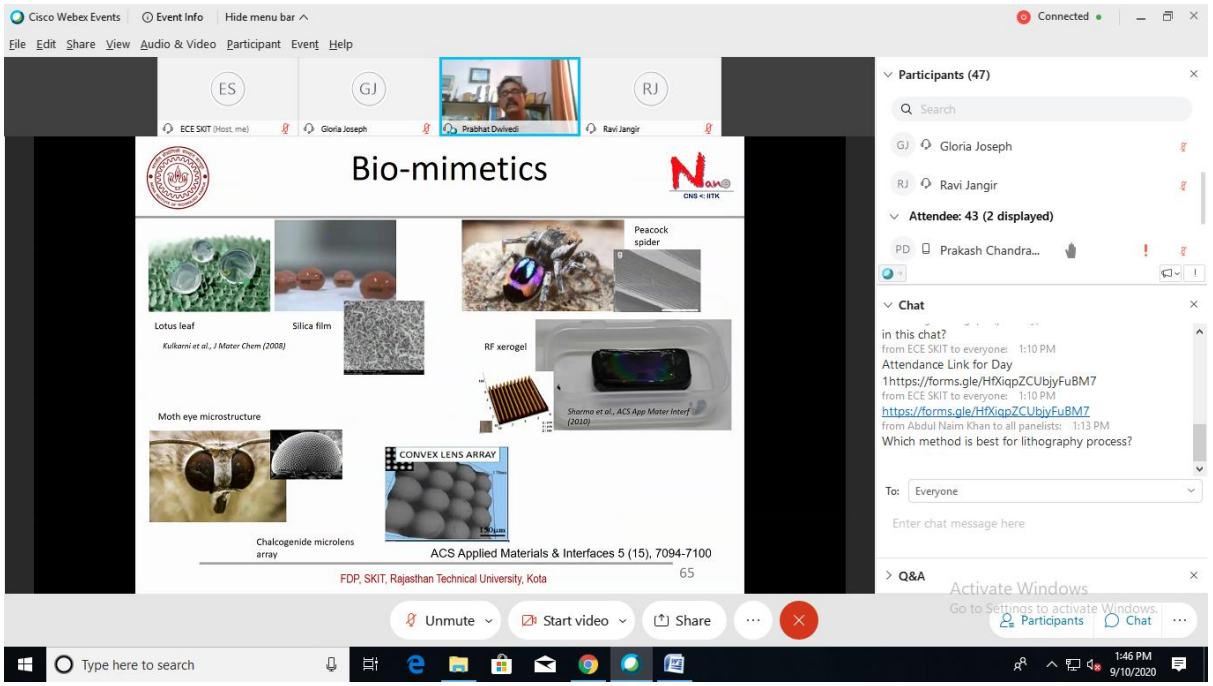
Go to Settings to activate Windows.
Unmute
Start video
Share
Participants
Chat
Type here to search
1:37 PM
9/10/2020


Cisco Webex Events
Event Info
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File Edit Share View Audio & Video Participant Event Help
ECE SKIT (Host, me)
Gloria Joseph
Prabhat Dwivedi
Ravi Jangir
Bio-mimetics
Lotus leaf
Silica film
Kulkarni et al., J Mater Chem (2008)
Peacock spider
RF xerogel
Sharma et al., ACS App Mater Interf (2010)
Moth eye microstructure
CONVEX LENS ARRAY
Chalcogenide microlens array
ACS Applied Materials & Interfaces 5 (15), 7094-7100
FDP, SKIT, Rajasthan Technical University, Kota
65
Participants (47)
Search
Gloria Joseph
Ravi Jangir
Attendee: 43 (2 displayed)
Prakash Chandra...
Chat
in this chat?
from ECE SKIT to everyone: 1:10 PM
Attendance Link for Day
1https://forms.gle/HfXiqpZCUbjyFuBM7
from ECE SKIT to everyone: 1:10 PM
https://forms.gle/HfXiqpZCUbjyFuBM7
from Abdul Naim Khan to all panelists: 1:13 PM
Which method is best for lithography process?
To: Everyone
Enter chat message here
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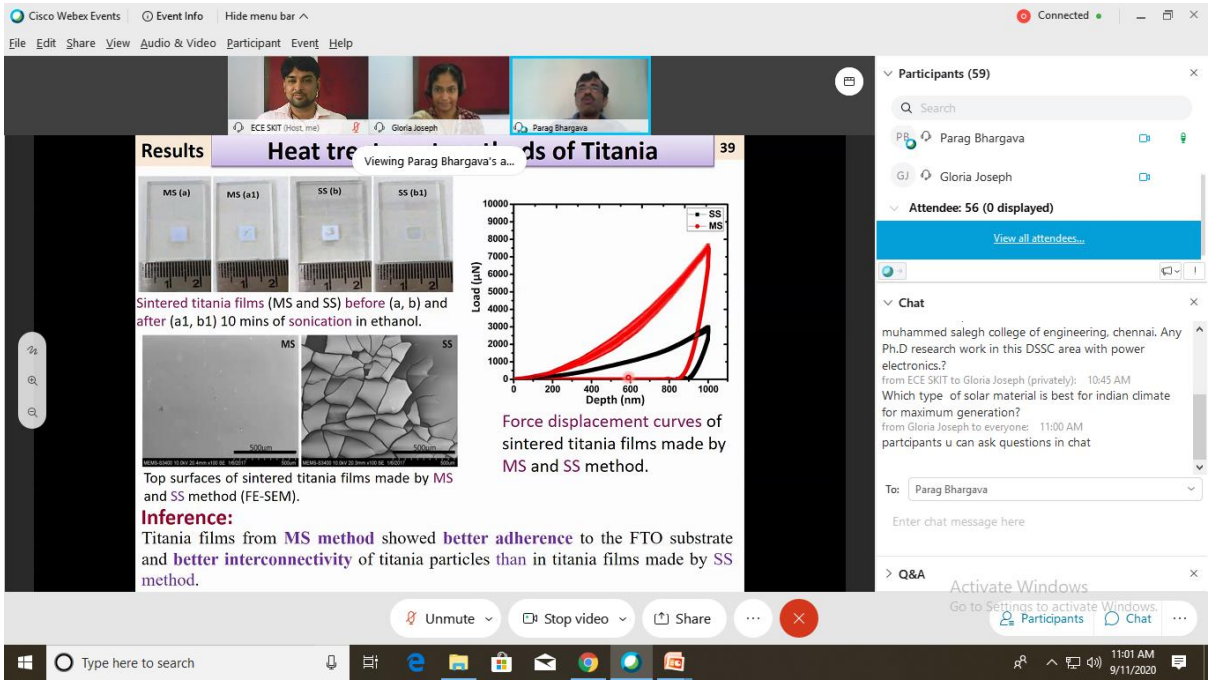
1:46 PM
9/10/2020

3. Day 2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Viewing Parag Bhargava's a...
Results
Heat tre ds of Titania
39
MS (a)
MS (a1)
SS (b)
SS (b1)
Sintered titania films (MS and SS) before (a, b) and after (a1, b1) 10 mins of sonication in ethanol.
MS
SS
Top surfaces of sintered titania films made by MS and SS method (FE-SEM).
Load (μN)
Depth (nm)
SS
MS
Force displacement curves of sintered titania films made by MS and SS method.
Inference:
Titania films from MS method showed better adherence to the FTO substrate and better interconnectivity of titania particles than in titania films made by SS method.
Participants (59)
Parag Bhargava
Gloria Joseph
Attendee: 56 (0 displayed)
View all attendees...
Chat
muhammed salegh college of engineering, chennai. Any Ph.D research work in this DSSC area with power electronics.?
from ECE SKIT to Gloria Joseph (privately): 10:45 AM
Which type of solar material is best for indian climate for maximum generation?
from Gloria Joseph to everyone: 11:00 AM
partcipants u can ask questions in chat
To: Parag Bhargava
Enter chat message here
Q&A
Unmute
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Participants
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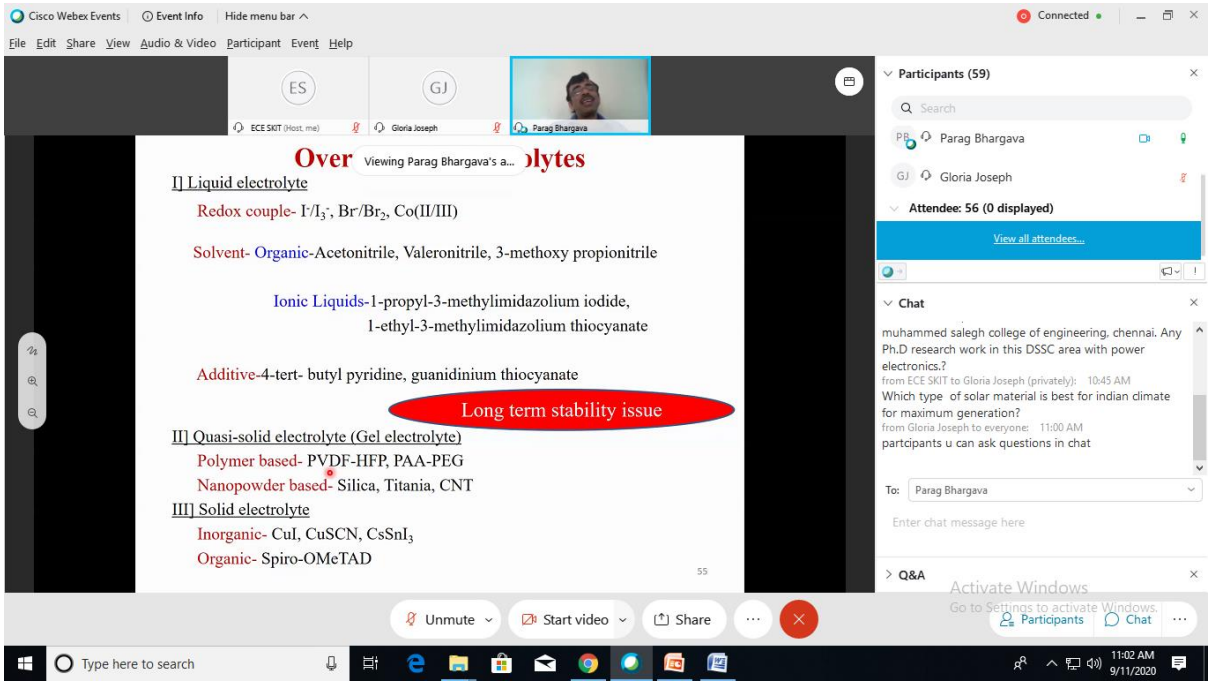
11:01 AM
9/11/2020


Cisco Webex Events
Event Info
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Viewing Parag Bhargava's a...
Over lytes
I] Liquid electrolyte
Redox couple- I^-/I_3^-, Br^-/Br_2, Co(II/III)
Solvent- Organic-Acetonitrile, Valeronitrile, 3-methoxy propionitrile
Ionic Liquids-1-propyl-3-methylimidazolium iodide,
1-ethyl-3-methylimidazolium thiocyanate
Additive-4-tert- butyl pyridine, guanidinium thiocyanate
Long term stability issue
II] Quasi-solid electrolyte (Gel electrolyte)
Polymer based- PVDF-HFP, PAA-PEG
Nanopowder based- Silica, Titania, CNT
III] Solid electrolyte
Inorganic- CuI, CuSCN, $CsSnI_3$
Organic- Spiro-OMeTAD
55
Participants (59)
Parag Bhargava
Gloria Joseph
Attendee: 56 (0 displayed)
View all attendees...
Chat
muhammed salegh college of engineering, chennai. Any Ph.D research work in this DSSC area with power electronics.?
from ECE SKIT to Gloria Joseph (privately): 10:45 AM
Which type of solar material is best for indian climate for maximum generation?
from Gloria Joseph to everyone: 11:00 AM
partcipants u can ask questions in chat
To: Parag Bhargava
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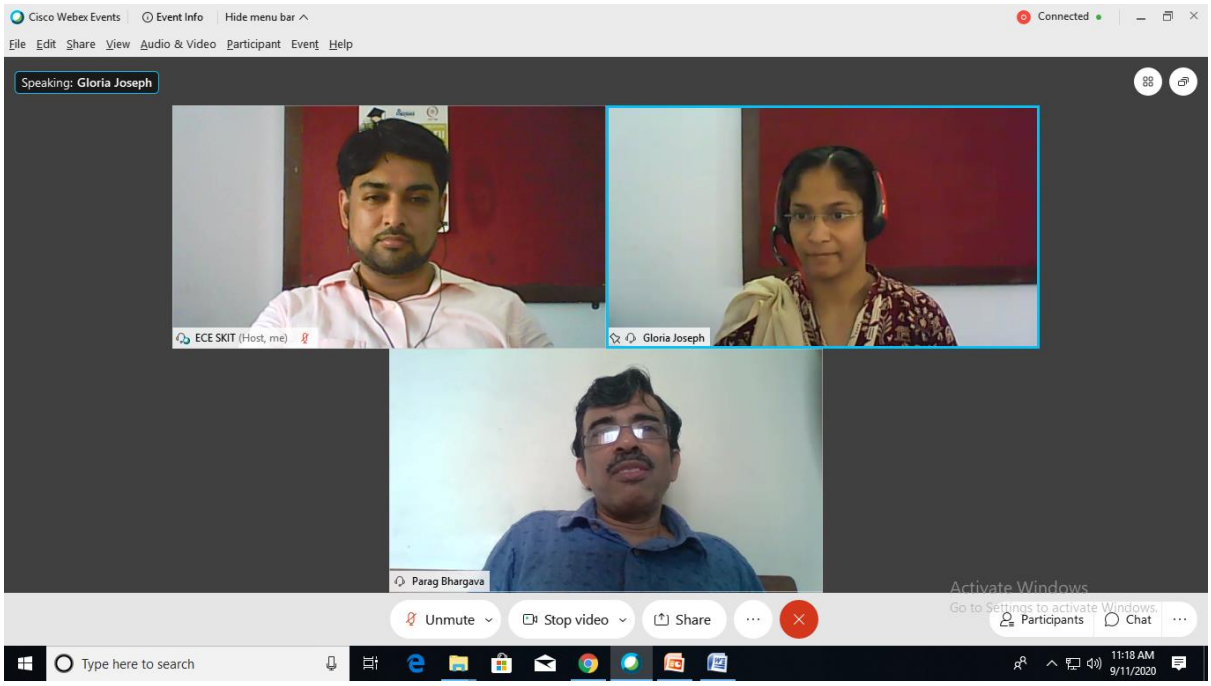
Participants
Chat
Type here to search
11:02 AM
9/11/2020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Event Info
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File Edit Share View Audio & Video Participant Event Help
Speaking: Gloria Joseph
ECE SKIT (Host, me)
Gloria Joseph
Parag Bhargava
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Participants
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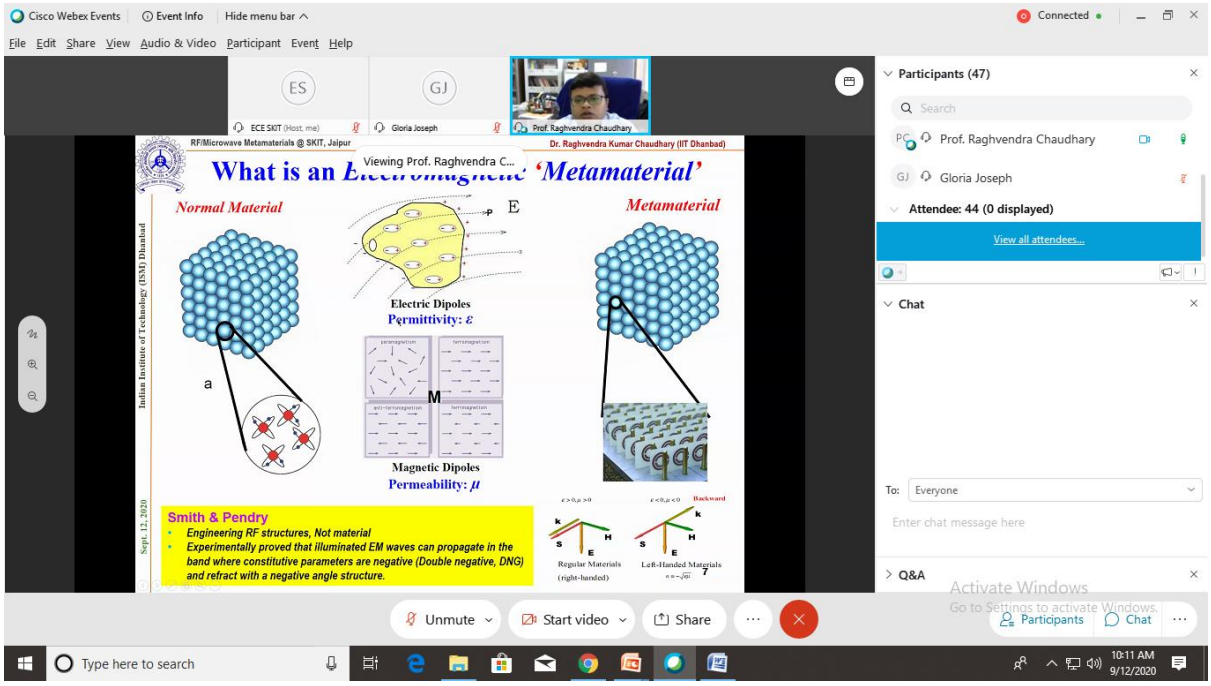
4. Day 3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Participants (47)
Search
Prof. Raghvendra Chaudhary
Gloria Joseph
Attendee: 44 (0 displayed)
View all attendees...
Chat
To: Everyone
Enter chat message here
Q&A
RF/Microwave Metamaterials @ SKIT, Jaipur
Dr. Raghvendra Kumar Chaudhary (IIT Dhanbad)
Viewing Prof. Raghvendra C...
What is an Electromagnetic 'Metamaterial'
Normal Material
Metamaterial
Electric Dipoles
Permittivity: ε
Magnetic Dipoles
Permeability: μ
Smith & Pendry
Engineering RF structures, Not material
Experimentally proved that illuminated EM waves can propagate in the band where constitutive parameters are negative (Double negative, DNG) and refract with a negative angle structure.
Regular Materials (right-handed)
Left-Handed Materials
Backward
Indian Institute of Technology (ISM) Dhanbad
Sept. 12, 2020
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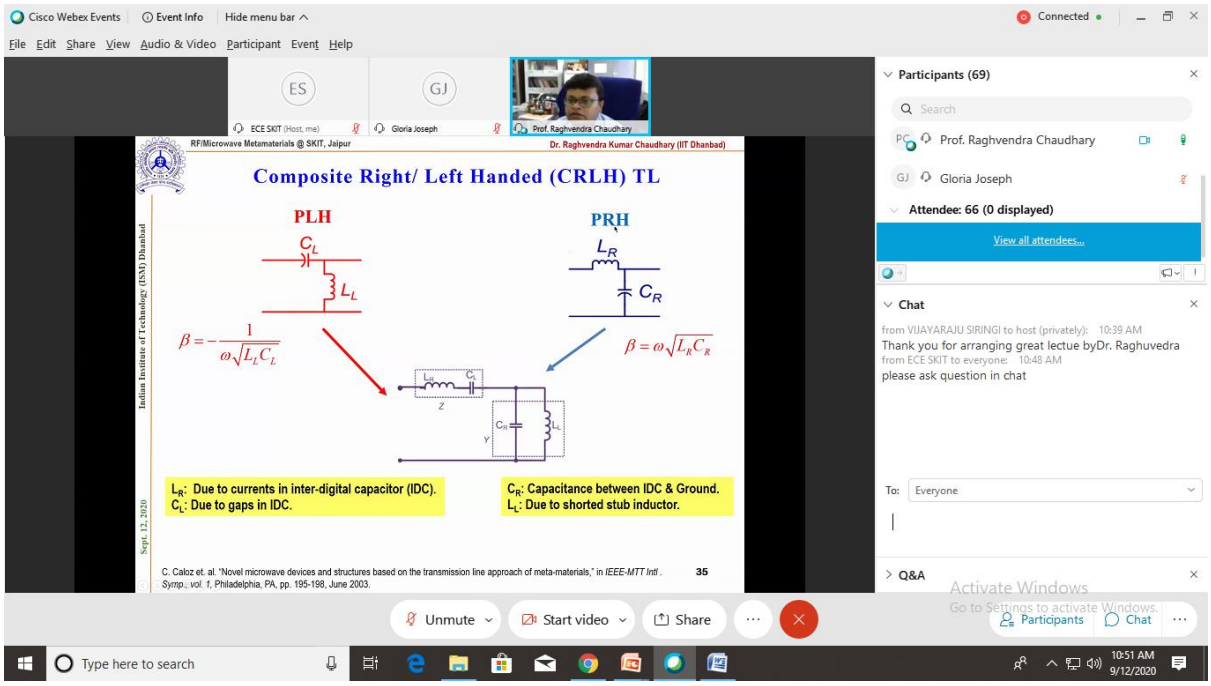
10:11 AM
9/12/2020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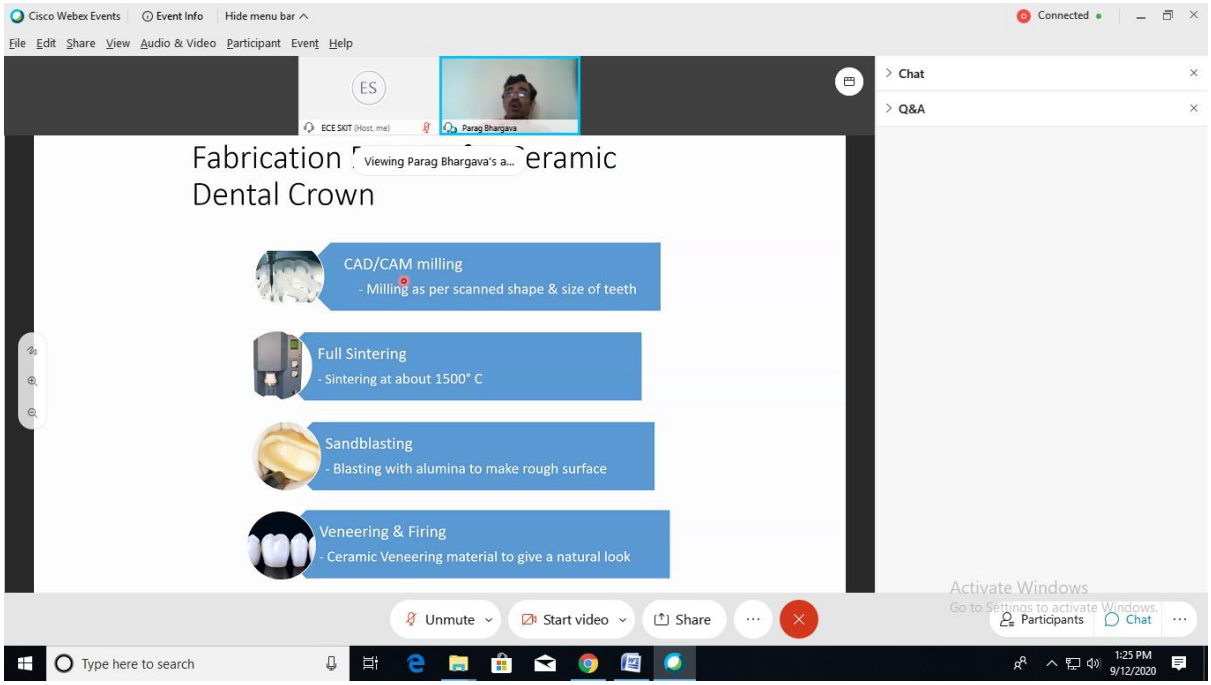
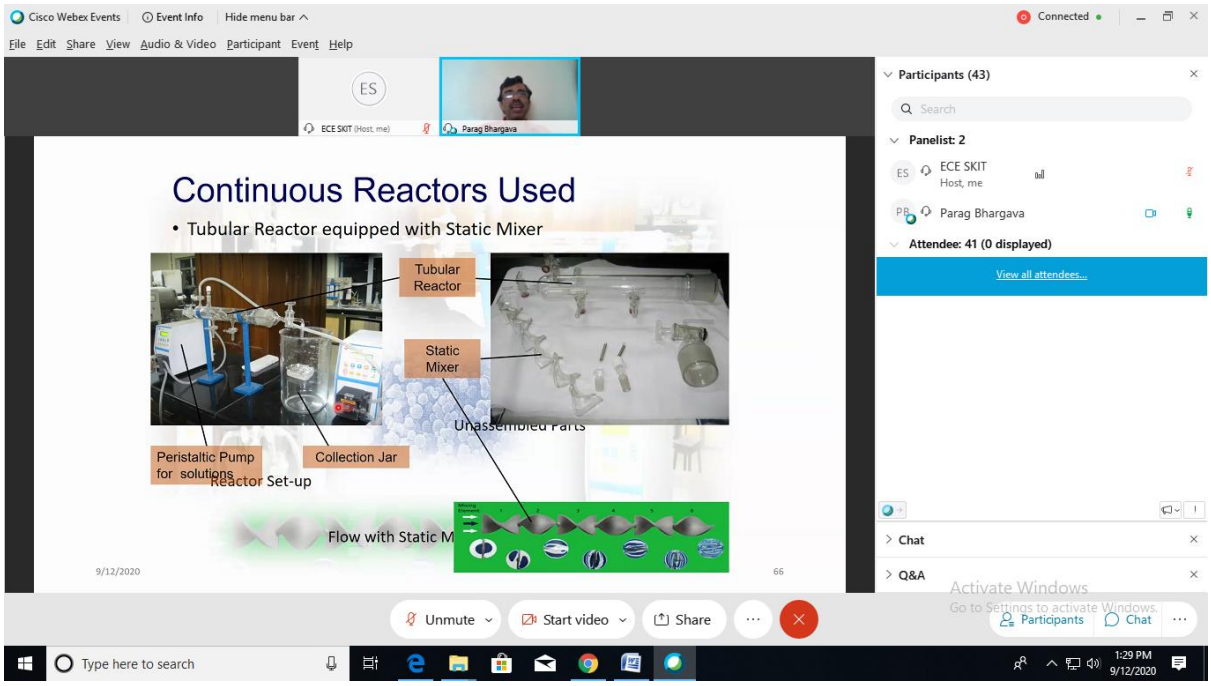
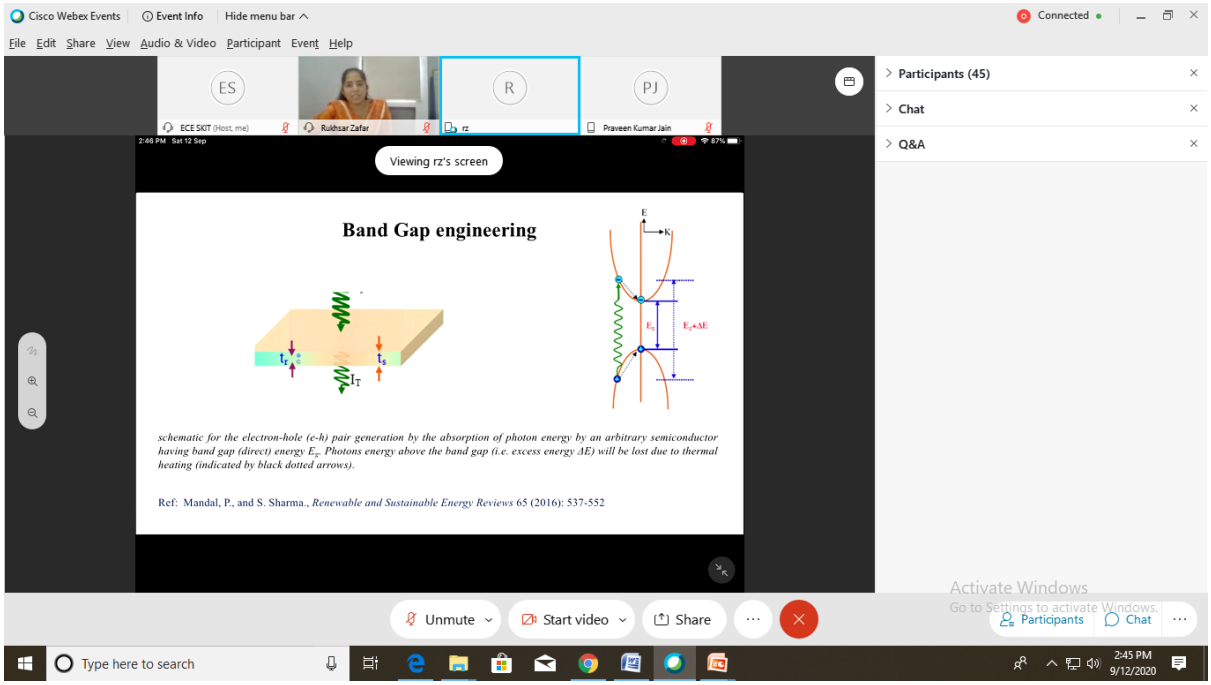
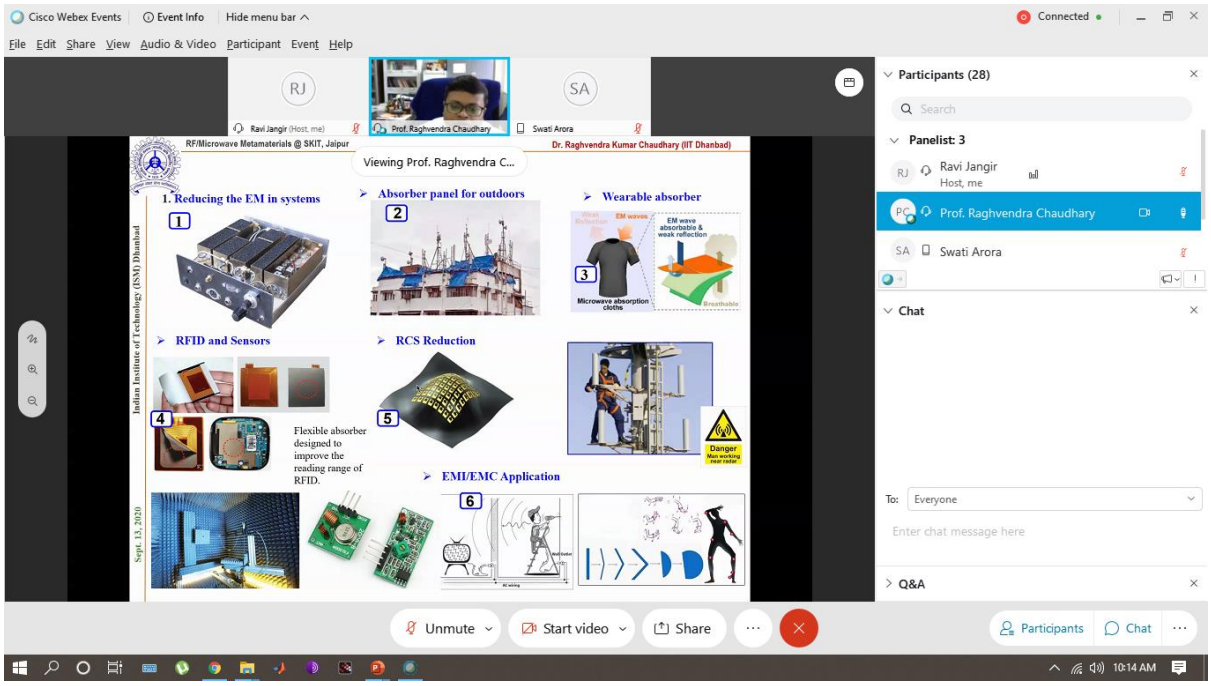
ECE SKIT (Host, me)
Gloria Joseph
Prof. Raghvendra Chaudhary
Participants (69)
Search
Prof. Raghvendra Chaudhary
Gloria Joseph
Attendee: 66 (0 displayed)
View all attendees...
Chat
from VIJAYARAJU SIRINGI to host (privately): 10:39 AM
Thank you for arranging great lectue byDr. Raghuvedra
from ECE SKIT to everyone: 10:48 AM
please ask question in chat
To: Everyone
Q&A
RF/Microwave Metamaterials @ SKIT, Jaipur
Dr. Raghvendra Kumar Chaudhary (IIT Dhanbad)
Composite Right/ Left Handed (CRLH) TL
PLH
PRH
$\beta = -\frac{1}{\omega\sqrt{L_L C_L}}$
$\beta = \omega\sqrt{L_R C_R}$
L_R: Due to currents in inter-digital capacitor (IDC).
C_L: Due to gaps in IDC.
C_R: Capacitance between IDC & Ground.
L_L: Due to shorted stub inductor.
C. Caloz et. al. "Novel microwave devices and structures based on the transmission line approach of meta-materials," in IEEE-MTT Intl. Symp., vol. 1, Philadelphia, PA, pp. 195-198, June 2003.
35
Sept. 12, 2020
Indian Institute of Technology (ISM) Dhanbad
Unmute
Start video
Share
Participants
Chat
Activate Windows
Go to Settings to activate Windows.
Type here to search
10:51 AM
9/12/2020

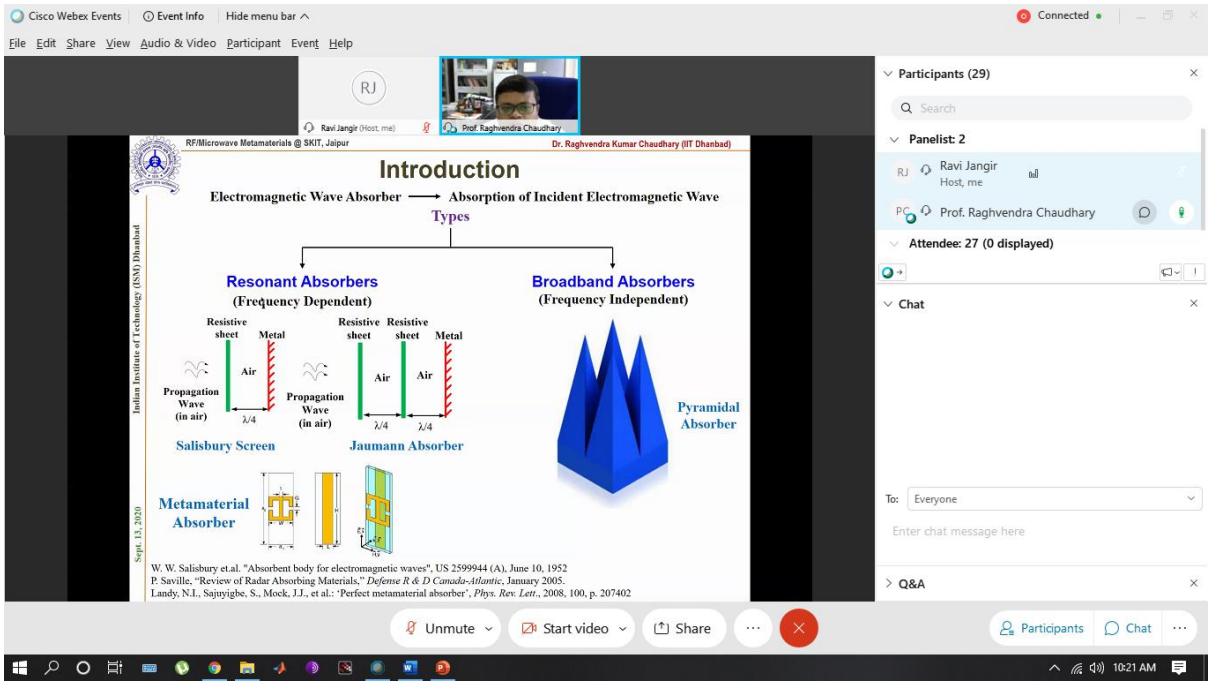

Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
ECE SKIT (Host, me)
Parag Bhargava
Chat
Q&A
Viewing Parag Bhargava's a...
Fabrication
eramic
Dental Crown
CAD/CAM milling
- Milling as per scanned shape & size of teeth
Full Sintering
- Sintering at about 1500° C
Sandblasting
- Blasting with alumina to make rough surface
Veneering & Firing
- Ceramic Veneering material to give a natural look
Unmute
Start video
Share
Participants
Chat
Activate Windows
Go to Settings to activate Windows.
Type here to search
1:25 PM
9/12/2020

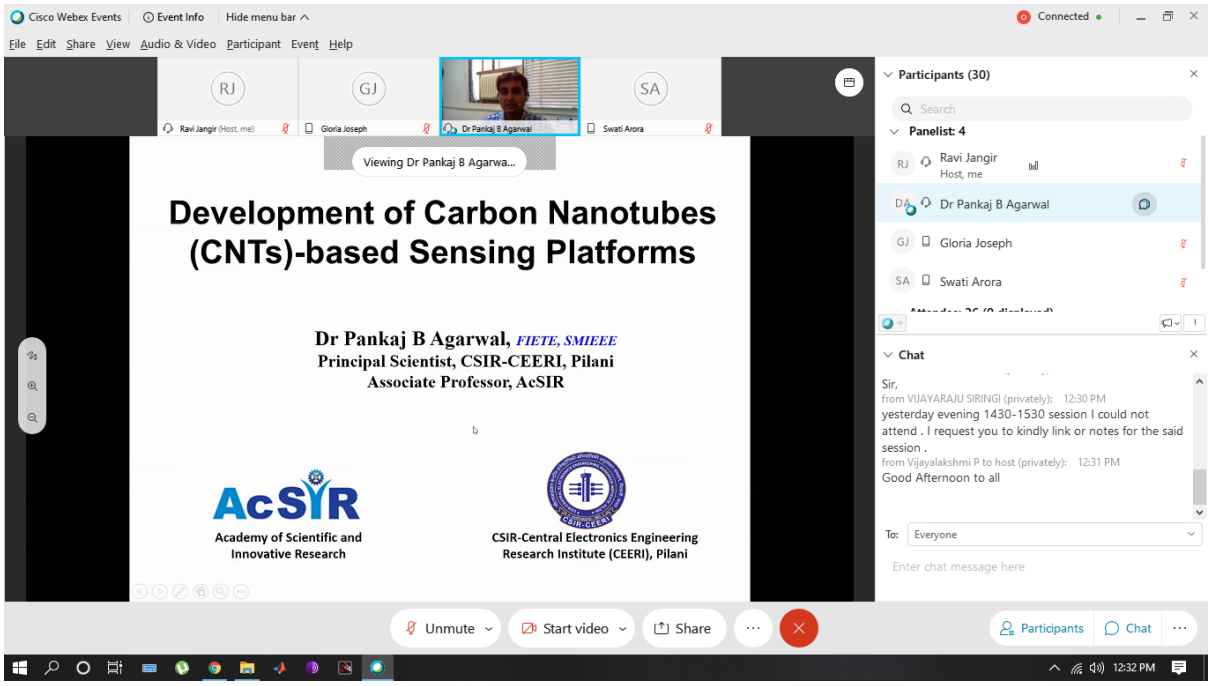

Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Participants (43)
Search
Panelist: 2
ECE SKIT
Host, me
Parag Bhargava
Attendee: 41 (0 displayed)
View all attendees...
Continuous Reactors Used
• Tubular Reactor equipped with Static Mixer
Tubular Reactor
Static Mixer
Unassembled Parts
Peristaltic Pump for solutions
Collection Jar
Reactor Set-up
Flow with Static M
9/12/2020
66
Chat
Q&A
Unmute
Start video
Share
Participants
Chat
Activate Windows
Go to Settings to activate Windows.
Type here to search
1:29 PM
9/12/2020

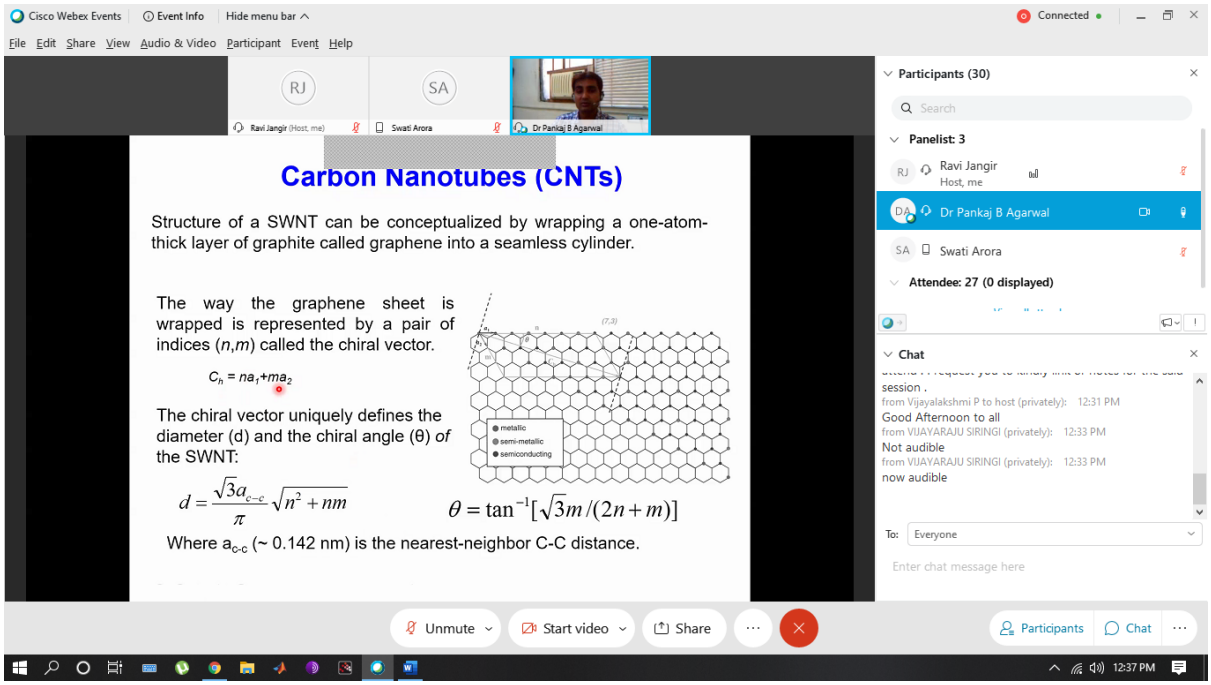

Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Participants (45)
Chat
Q&A
Viewing rz's screen
Band Gap engineering
schematic for the electron-hole (e-h) pair generation by the absorption of photon energy by an arbitrary semiconductor having band gap (direct) energy E_g. Photons energy above the band gap (i.e. excess energy ΔE) will be lost due to thermal heating (indicated by black dotted arrows).
Ref: Mandal, P., and S. Sharma., Renewable and Sustainable Energy Reviews 65 (2016): 537-552
Unmute
Start video
Share
Participants
Chat
Activate Windows
Go to Settings to activate Windows.
Type here to search
2:45 PM
9/12/2020

5. Day 4


Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Ravi Jangir (Host, me)
Prof. Raghvendra Chaudhary
Swati Arora
RF/Microwave Metamaterials @ SKIT, Jaipur
Dr. Raghvendra Kumar Chaudhary (IIT Dhanbad)
Viewing Prof. Raghvendra C...
Indian Institute of Technology (ISM) Dhanbad
Sept. 13, 2020
1. Reducing the EM in systems
Absorber panel for outdoors
Wearable absorber
RFID and Sensors
RCS Reduction
Flexible absorber designed to improve the reading range of RFID.
EMI/EMC Application
Participants (28)
Search
Panelist: 3
Ravi Jangir
Host, me
Prof. Raghvendra Chaudhary
Swati Arora
Chat
To: Everyone
Enter chat message here
Q&A
Unmute
Start video
Share
Participants
Chat
10:14 AM


Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Ravi Jangir (Host, me)
Prof. Raghvendra Chaudhary
RF/Microwave Metamaterials @ SKIT, Jaipur
Dr. Raghvendra Kumar Chaudhary (IIT Dhanbad)
Indian Institute of Technology (ISM) Dhanbad
Sept. 13, 2020
Introduction
Electromagnetic Wave Absorber → Absorption of Incident Electromagnetic Wave
Types
Resonant Absorbers
(Frequency Dependent)
Broadband Absorbers
(Frequency Independent)
Resistive sheet
Metal
Air
Propagation Wave (in air)
λ/4
Salisbury Screen
Jaumann Absorber
Pyramidal Absorber
Metamaterial Absorber
W. W. Salisbury et.al. "Absorbent body for electromagnetic waves", US 2599944 (A), June 10, 1952
P. Saville, "Review of Radar Absorbing Materials," Defense R & D Canada-Atlantic, January 2005.
Landy, N.I., Sajuyigbe, S., Mock, J.J., et al.: 'Perfect metamaterial absorber', Phys. Rev. Lett., 2008, 100, p. 207402
Participants (29)
Search
Panelist: 2
Ravi Jangir
Host, me
Prof. Raghvendra Chaudhary
Attendee: 27 (0 displayed)
Chat
To: Everyone
Enter chat message here
Q&A
Unmute
Start video
Share
Participants
Chat
10:21 AM


Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Viewing Dr Pankaj B Agarwa...
Development of Carbon Nanotubes (CNTs)-based Sensing Platforms
Dr Pankaj B Agarwal, FIETE, SMIEEE
Principal Scientist, CSIR-CEERI, Pilani
Associate Professor, AcSIR
AcSIR
Academy of Scientific and Innovative Research
CSIR-Central Electronics Engineering Research Institute (CEERI), Pilani
Participants (30)
Panelist: 4
Ravi Jangir Host, me
Dr Pankaj B Agarwal
Gloria Joseph
Swati Arora
Chat
Sir,
from VIJAYARAJU SIRINGI (privately): 12:30 PM
yesterday evening 1430-1530 session I could not attend . I request you to kindly link or notes for the said session .
from Vijayalakshmi P to host (privately): 12:31 PM
Good Afternoon to all
To: Everyone
Enter chat message here
Unmute
Start video
Share
Participants
Chat
12:32 PM


Cisco Webex Events
Event Info
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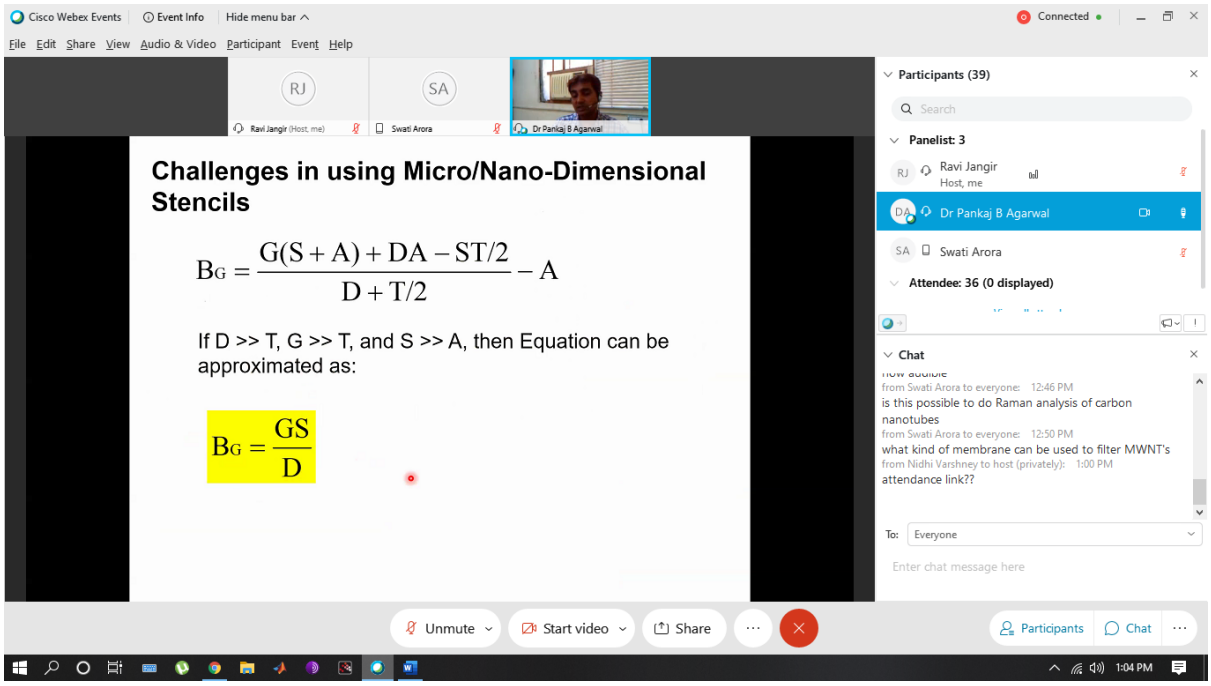
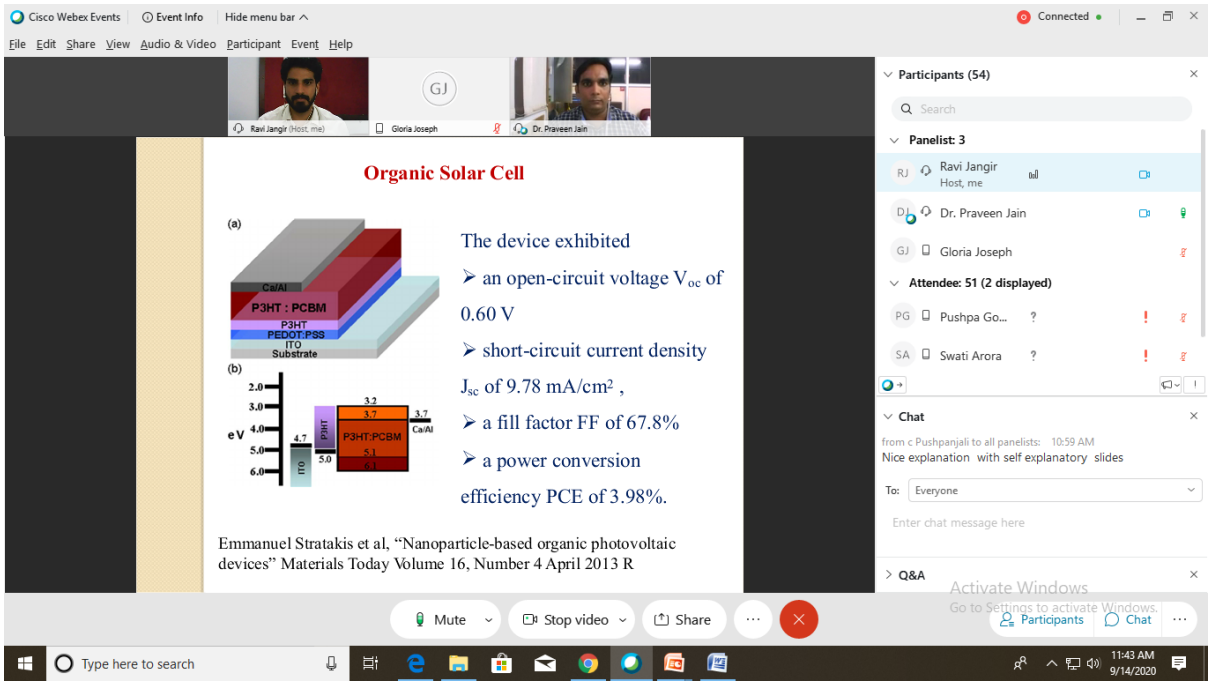
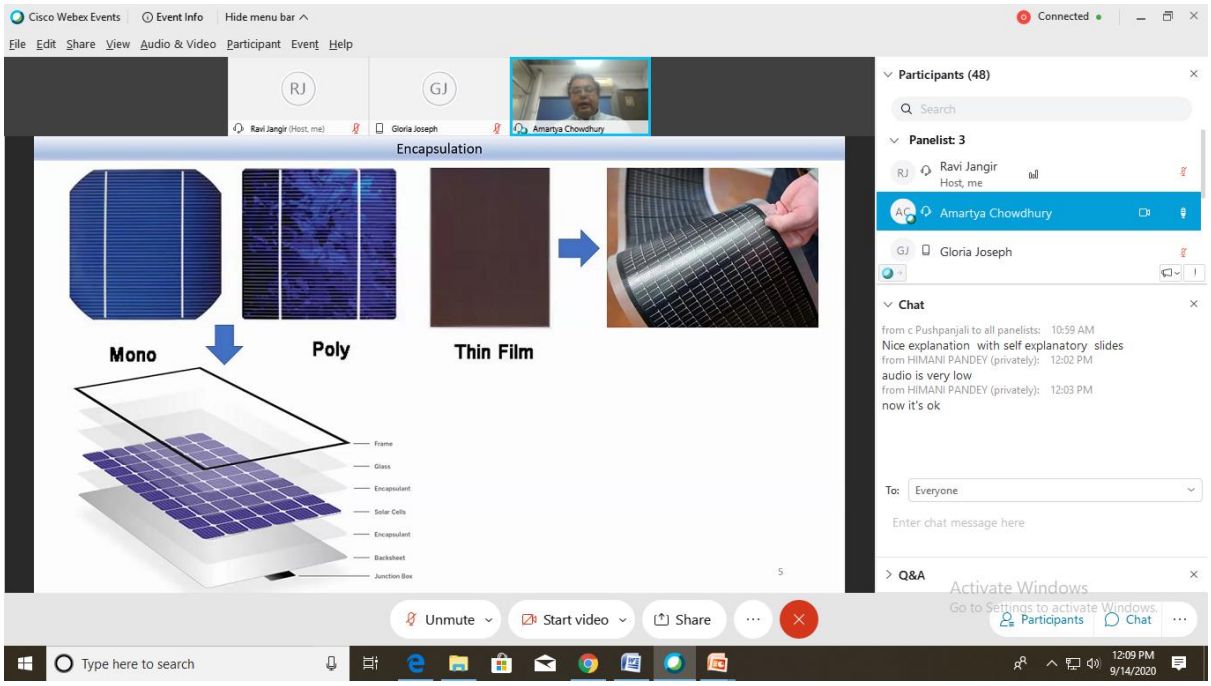
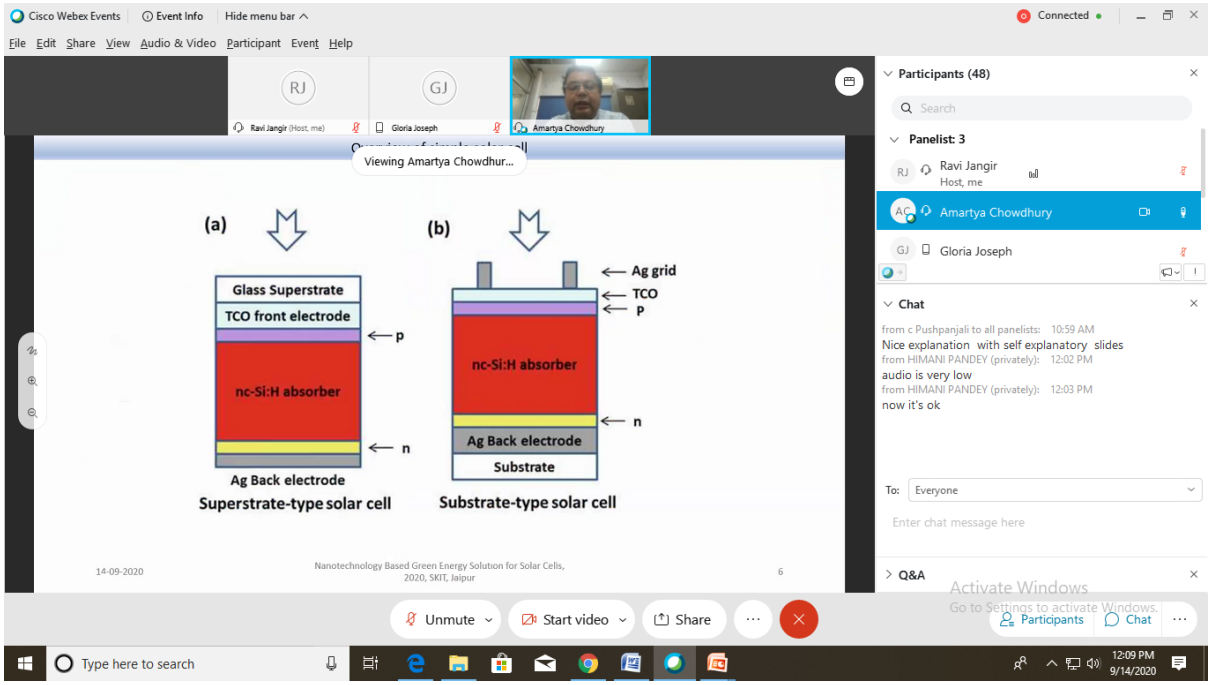
Connected
File Edit Share View Audio & Video Participant Event Help
Carbon Nanotubes (CNTs)
Structure of a SWNT can be conceptualized by wrapping a one-atom-thick layer of graphite called graphene into a seamless cylinder.
The way the graphene sheet is wrapped is represented by a pair of indices (n,m) called the chiral vector.
$C_h = na_1 + ma_2$
The chiral vector uniquely defines the diameter (d) and the chiral angle (θ) of the SWNT:
$d = \frac{\sqrt{3}a_{c-c}}{\pi}\sqrt{n^2+nm}$
$\theta = \tan^{-1}[\sqrt{3}m/(2n+m)]$
Where a_{c-c} (~ 0.142 nm) is the nearest-neighbor C-C distance.
metallic
semi-metallic
semiconducting
Participants (30)
Panelist: 3
Ravi Jangir Host, me
Dr Pankaj B Agarwal
Swati Arora
Attendee: 27 (0 displayed)
Chat
session .
from Vijayalakshmi P to host (privately): 12:31 PM
Good Afternoon to all
from VIJAYARAJU SIRINGI (privately): 12:33 PM
Not audible
from VIJAYARAJU SIRINGI (privately): 12:33 PM
now audible
To: Everyone
Enter chat message here
Unmute
Start video
Share
Participants
Chat
12:37 PM


Challenges in using Micro/Nano-Dimensional Stencils
$B_G = \frac{G(S+A) + DA - ST/2}{D + T/2} - A$
If D >> T, G >> T, and S >> A, then Equation can be approximated as:
$B_G = \frac{GS}{D}$
Participants (39)
Panelist: 3
Ravi Jangir Host, me
Dr Pankaj B Agarwal
Swati Arora
Attendee: 36 (0 displayed)
Chat
from Swati Arora to everyone: 12:46 PM
is this possible to do Raman analysis of carbon nanotubes
from Swati Arora to everyone: 12:50 PM
what kind of membrane can be used to filter MWNT's
from Nidhi Varshney to host (privately): 1:00 PM
attendance link??
To: Everyone
Enter chat message here
Unmute
Start video
Share
Participants
Chat

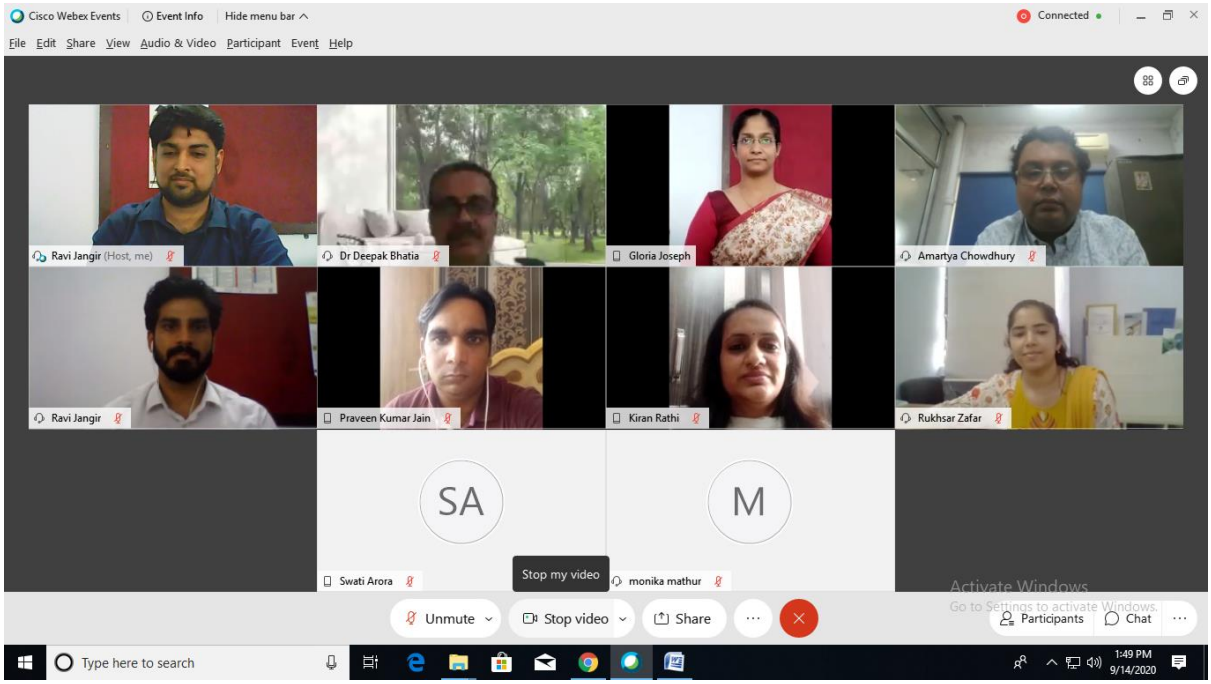
6. Day 5


Organic Solar Cell
(a)
Ca/Al
P3HT : PCBM
P3HT
PEDOT:PSS
ITO
Substrate
(b)
eV
P3HT
P3HT:PCBM
Ca/Al
ITO
The device exhibited
➢ an open-circuit voltage V_{oc} of 0.60 V
➢ short-circuit current density J_{sc} of 9.78 mA/cm² ,
➢ a fill factor FF of 67.8%
➢ a power conversion efficiency PCE of 3.98%.
Emmanuel Stratakis et al, "Nanoparticle-based organic photovoltaic devices" Materials Today Volume 16, Number 4 April 2013 R
Participants (54)
Panelist: 3
Ravi Jangir Host, me
Dr. Praveen Jain
Gloria Joseph
Attendee: 51 (2 displayed)
Pushpa Go...
Swati Arora
Chat
from c Pushpanjali to all panelists: 10:59 AM
Nice explanation with self explanatory slides
To: Everyone
Enter chat message here
Q&A
Activate Windows
Mute
Stop video
Share
Participants
Chat
Type here to search


Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Ravi Jangir (Host, me)
Gloria Joseph
Amartya Chowdhury
Encapsulation
Mono
Poly
Thin Film
Frame
Glass
Encapsulant
Solar Cells
Encapsulant
Backsheet
Junction Box
5
Participants (48)
Search
Panelist: 3
Ravi Jangir
Host, me
Amartya Chowdhury
Gloria Joseph
Chat
from c Pushpanjali to all panelists: 10:59 AM
Nice explanation with self explanatory slides
from HIMANI PANDEY (privately): 12:02 PM
audio is very low
from HIMANI PANDEY (privately): 12:03 PM
now it's ok
To: Everyone
Enter chat message here
Q&A
Activate Windows
Go to Settings to activate Windows.
Unmute
Start video
Share
Participants
Chat
Type here to search
12:09 PM
9/14/2020


Cisco Webex Events
Event Info
Hide menu bar
Connected
File Edit Share View Audio & Video Participant Event Help
Ravi Jangir (Host, me)
Gloria Joseph
Amartya Chowdhury
Viewing Amartya Chowdhur...
(a)
(b)
Glass Superstrate
TCO front electrode
nc-Si:H absorber
Ag Back electrode
p
n
Superstrate-type solar cell
Ag grid
TCO
P
nc-Si:H absorber
n
Ag Back electrode
Substrate
Substrate-type solar cell
14-09-2020
Nanotechnology Based Green Energy Solution for Solar Cells, 2020, SKIT, Jaipur
6
Participants (48)
Search
Panelist: 3
Ravi Jangir
Host, me
Amartya Chowdhury
Gloria Joseph
Chat
from c Pushpanjali to all panelists: 10:59 AM
Nice explanation with self explanatory slides
from HIMANI PANDEY (privately): 12:02 PM
audio is very low
from HIMANI PANDEY (privately): 12:03 PM
now it's ok
To: Everyone
Enter chat message here
Q&A
Activate Windows
Go to Settings to activate Windows.
Unmute
Start video
Share
Participants
Chat
Type here to search
12:09 PM
9/14/2020

7. Valedictory Session



Report of the Event

Faculty Development Program on **Nanotechnology Based Green Energy Solution for Solar cells (NGESS-2020)** was jointly organized by Rajasthan Technical University, Kota & Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur from 10th September to 14th September, 2020. This FDP was fully sponsored by RTU (ATU) under Technical Education Quality Improvement Program phase III (TEQIP-III) and conducted on WebEx online platform.

Dr. Chinmoy Saha, Associate Professor, IISST, Kerala, was the chief guest and **Dr. Debdeep Sarkar, Assistant Professor, IISC Bangalore** was the guest of honor of this FDP.
The FDP began with the welcome address by Prof. Mukesh Arora (Head, Department of Electronics and Communication Engineering, SKIT, Jaipur).

The Inauguration ceremony also witnesses the presence of **FDP Coordinator Dr. Deepak Bhatia (Assistant Professor, RTU Kota)**, **Prof. Praveen Kumar Jain** (Dy. Head, Department of Electronics and Communication Engineering, SKIT Jaipur), Dr. Swati Arora, Dr. Monika Mathur, Dr. Rukhsar Zafar, Miss Kiran Rathi, and Mrs. Gloria Goseph.
Dr. Deepak Bhatia addresses the participants about importance of Nanomaterial in green energy solutions and its relation to the engineering stream.
Total 234 faculty members from different institutes of the country have participated in this FDP.

In the first session of the first day **Dr. Chinmoy Saha,** in association with **Dr. Debdeep Sarkar** delivered an expert talk on Electromagnetic Energy: New Ideas, Harvesting and Power Transfer. They highlighted the importance of enhancing knowledge on Nanomaterials, its significance in solar energy harvesting and, its relation to the engineering stream.

In the subsequent session, **Dr. Prabhat Dwivedi, Centre for Nanosciences, IIT Kanpur,** gives his insights on Micro Nano fabrication techniques. Second day was started with an expert lecture of **Prof. Parag Bhargav IIT Bombay**. He enlightened the participants with the Overview of Dye-Sensitized Solar Cells and its importance in improving the efficiency of solar cells.

Day 2 was ended with an expert lecture of **Dr. Prabhat Dwivedi IIT Kanpur,** He shared his knowledge in the field of "A point-of-care platform for preventive healthcare devices based on Micro-nano technologies.

Third day was started with an expert lecture of **Dr. Raghvendra Kumar Chaudhary, Assistant Professor, IIT Dhanbad.** He shed light on the RF/Microwave Metamaterials. The lecture is followed by two knowledge enlightening sessions of **Prof. Parag Bhargav, IIT Bombay** and **Dr. Rukhsar Zafar, Associate Professor, SKIT Jaipur.** They have shared their knowledge in the field of Ceramic Nanomaterials and Plasmonic enhanced Solar Cells

respectively. The use of ceramic as well as Plasmonic Nanomaterials can led to enhancement in efficiency of solar cells to many folds.

Day 4 started again with an interactive session of – **Dr. Raghvendra Kumar Chaudhary, Assistant Professor, IIT Dhanbad**. He enlightened the gathering with the basics of Metamaterial Absorbers and their applications in enhancing the performance of solar cells. In continuation to that, **Dr. Pankaj Agrawal, Principal Scientist, Ceeri, Pilani** , discussed the development of Carbon Nano Tube based sensing Platform.

Day 5 was opened with the much awaiting session on Inorganic & Hybrid Solar Cell by **Dr. Praveen Kumar Jain, Professor, SKIT Jaipur.** He enlightened the gathering with his expertise and related research work. This is followed by an expert lecture on **Nanocrystalline based Solar cell by Dr. Amartya Chowdhury, Assistant Professor, MNIT Jaipur.** He shared his knowledge on the importance of thin film cell and the related performance on the basis of experimental work being carried out by him.

The discussed areas are of great benefit for the participants as they are enlightened with the most widely used advance strategies and techniques being used in the designing and development of Nano-material based renewable energy sources.

Media Coverage

एसकेआईटी में नैनो टेक्नोलॉजी पर कार्यक्रम

जयपुर (सीमा सन्देश)। नैनो टेक्नोलॉजी के प्रयोग से सोलर सैल की इफिशिएंसी को बढ़ा कर तथा आरइएच तकनीकी से बैटरी पर निर्भरता को खत्म कर के हरित ऊर्जा के क्षेत्र में एक नए आयाम को स्पर्श किया जा सकता है। जगतपुरा स्थित स्वामी केशवानंद इंस्टिट्यूट ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोत्थान में नैनो टेक्नोलॉजी बेस्ड एनर्जी सॉल्यूशन फॉर सोलर सैल विषय पर पांच दिवसीय फैकेल्टी डवलपमेंट प्रोग्राम का शुभारंभ हुआ। उद्घाटन समारोह में मुख्य अतिथि डॉ. चिन्मोय साहा (आईआईएसटी,केरल) तथा सम्मानीय अतिथि डॉ. देवदीप सरकार (आईआईएससी, बैंगलोर) थे। अभियांत्रिकी एवं संचार विभाग के विभागाध्यक्ष डॉ. मुकेश अरोड़ा ने मुख्य अतिथियों का स्वागत करते हुए यह बताया कि विभाग द्वारा आयोजित विभिन्न फैकेल्टी डवलपमेंट प्रोग्राम श्रृंखलाओं से फैक्लटी को कार्यदक्षता व निपुणता हासिल करने में मदद मिलती है। डॉ. प्रवीण कुमार जैन (प्रोफेसर, एसकेआईटी) ने संस्था की उपलब्धियों बारे अवगत करवाया। डॉ. दीपक भाटिया (आरटीयू, कोटा) ने वर्तमान परिपेक्ष में नैनो टेक्नोलॉजी की उपयोगिता पर प्रकाश डाला तथा एफडीपी के सभी सेशन का महत्व बताया। एफडीपी समन्वयक डॉ. स्वाति अरोड़ा ने सभी गणमान्य अतिथियों का आभार जताया। देश के विभिन्न इंजीनियरिंग कॉलेज के 272 फैकल्टी ने भाग लिया।

Invitation Mail

Dear All

We are glad to inform that **Department of Electronics and Communication Engineering**, **Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur** is organizing an **RTU (ATU) TEQIP-III** Sponsored Online one week Faculty Development Programme (FDP) on ***"Nanotechnology Based Green Energy Solution for Solar cells (NGESS-2020)"*** **from 10th September – 14th September 2020.**

The aim of this FDP is to provide an exposure to both basics and recent advances in Nanotechnology or Nanoscience being used to promote green energy sources.

This FDP will focus on:

- Basics and recent advances in Nanotechnology.
- Establishing the basic concept of Overview of Di-Sensitized Solar Cells.
- Understanding the Basic concepts and Process of Micro/Nano fabrication techniques.
- Electromagnetic Energy.
- Preventive healthcare devices based on Micro-Nano technologies.
- RF/Microwave Metamaterials.
- Plasmonic enhanced Solar cell.
- Ceramic Nanomaterials.
- Learning the various aspects of Solar Cell using Green Energy Solution.
- Inorganic and Hybrid Solar cell.
- Solar cell using Photonics.

The brochure is attached with the mail.

Registration Link: https://forms.gle/mfemjHikYkJaJ3qN8

WhatsApp group link: https://chat.whatsapp.com/BjlgwWuh73L5ibROeGV32f

Google Classroom Code: 2hkn3ss

Email id for correspondence: fdpece@skit.ac.in

Note: It is advised to download WebEx and join WhatsApp group and Google Classroom in the Context of this FDP.

We look forward to your presence and participation.

We request you to give a wide circulation of this e-mail to your contacts

Thanking You

Organizing Team

NGESS-2020

Dr. Swati Arora (9982036054)
(Associate Professor)

Mr. Ravi Jangir (9649331099)
(Assistant Professor)

Department of ECE

SKIT Jaipur

Daily Whatsapp Message Sample

Dear Sir/Madam,

Greetings from the Department of ECE, SKIT!!!

Thank you all for being a part of this online FDP “Nanotechnology Based Green Energy Solutions for Solar Cells (NGESSS-2020)".

Day-1, 10/9/2020

We will have Inauguration followed by two Sessions.

Looking forward to see you on 10-09-2020 at 9:30 A.M. to the WebEx Inauguration session

The experts of Session will be

(1) Dr. Chinmoy Saha IISST, Kerala and Dr. Debdeep Sarkar, IISc Bangalore- 10:00 AM - 12:00 PM

(2) Dr. Prabhat Dwivedi, IIT Kanpur- 12:30 PM to 2:00 PM

The Session will be held on WebEx platform.

WebEx Meeting Link (DAY 1):

https://skitjaipur.webex.com/skitjaipur/onstage/g.php?MTID=ecdfe1e4b6b17b9dca023060d750f5e8e

Note:-

(1) Please don't change the password, keep it default.

(2) Please join the session at Webex before 10 minute of scheduled time.

(3) Attendance will be share on Google Classroom only (Classroom Code- 2hkn3ss).

(4) Feedback link will be shared at the end of FDP i.e. 14-09-2020.

Thanks & Regards

Organizers

NGESS – 2020

Registration Form

TEQIP – III Sponsored Faculty Development Program on Nanotechnology Based Green Energy Solution for Solar cells (NGESS-2020) during 10th-14th September 2020

Organized by

Rajasthan Technical University, Kota

&

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Salute *

- ○ Mr.
- ○ Ms.
- ○ Dr.
- ○ Prof.

Participant Name *

Participant Name *

Short answer text

Designation *

Short answer text

Department *

Short answer text

Highest Qualification *

Short answer text

Institute *

Short answer text

Institute Address *

Short answer text

Mobile No. *

Short answer text

Whats app Number *

Short answer text

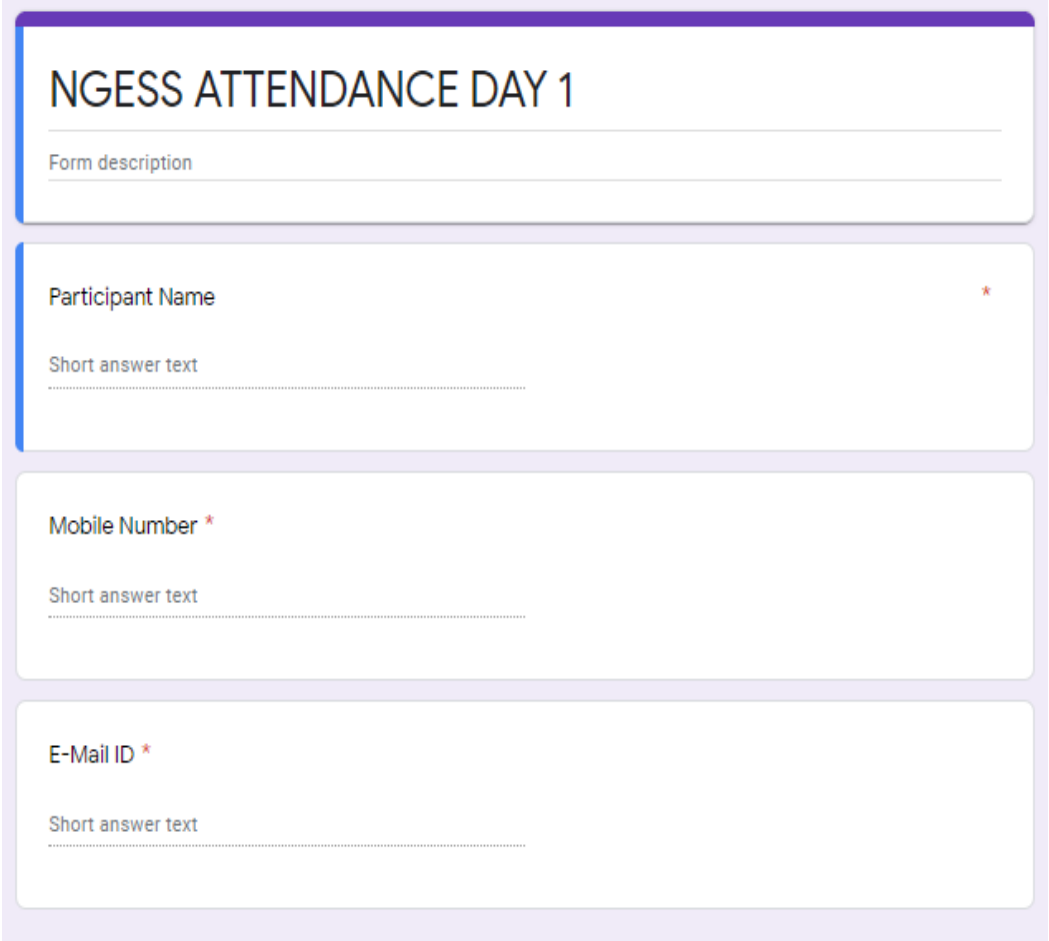
E-Mail ID *

Short answer text

Institute affiliated to Rajasthan Technical University (RTU) or Bikaner Technical University (BTU) *

- Yes
- No

Attendance Form



Assignment

ASSIGNMENT NGESS-2020

Form description

Participant Name *

Short answer text

Mobile Number *

Short answer text

E-Mail ID *

Short answer text

1. CNTs stands for _____ *

- Carbon Nanotubes
- Carbon Nanotechnology
- Carbon Nanoscience and technology
- Carbon Nine Technology

2. The metallic tubes have which kind of structure? *

- Armchair
- Chiral
- Boat
- Achiral

3. Which of the following is an example of top-down approach for the preparation of nanomaterials? *

- Gas phase agglomeration
- Molecular self-assembly
- Mechanical grinding
- Molecular beam epitaxy

4. Quantum dots can be used in _____ *

- Crystallography
- Optoelectronics
- Mechanics
- Quantum physics

5. What should be the band gap of the semiconductors to be used as solar cell materials? *

- 0.5 eV
- 1 eV
- 1.5 eV
- 1.9 eV

6. Which of the following materials cannot be used as solar cells materials? *

- Si
- GaAs
- CdS
- PbS

7. When the source of light is not sun light then the photo voltaic cell is used as ..... *

- Photo diode
- Photo voltaic cell
- Photo detector
- Photo transmitter

8. The current produce by the solar cell can be given by _____ *

- IL – ID + ISh
- IL + ID – ISh
- IL + ID + ISh
- IL – ID – ISh

9. Solar cells are made from bulk materials that are cut into wafer of _____ thickness. *

- 120-180μm
- 120-220μm
- 180-220μm
- 180-240μm

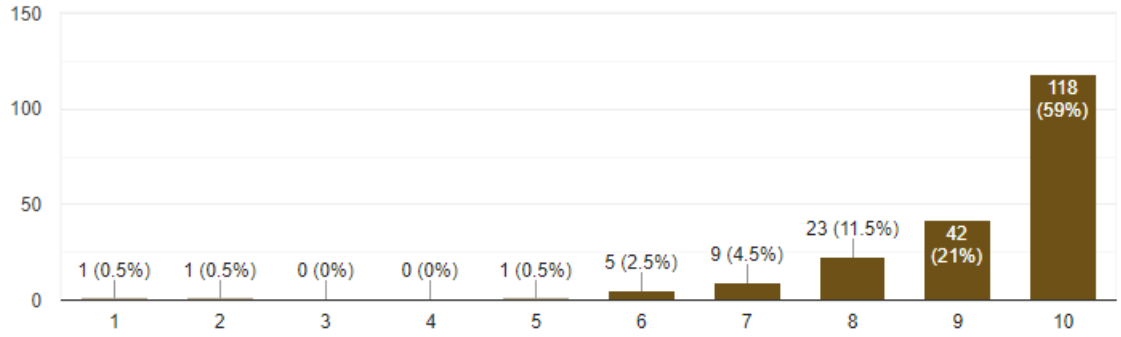
10. In an electromagnetic wave in free space, the root mean square value of the electric field is 6 * V/m. The peak value of the magnetic field is

- 2.83 x 10-8 T
- 1.51 x 10-8 T
- 0.80 x 10-8 T
- 4 x 10-8 T

Feedback analysis of NGESS-2020

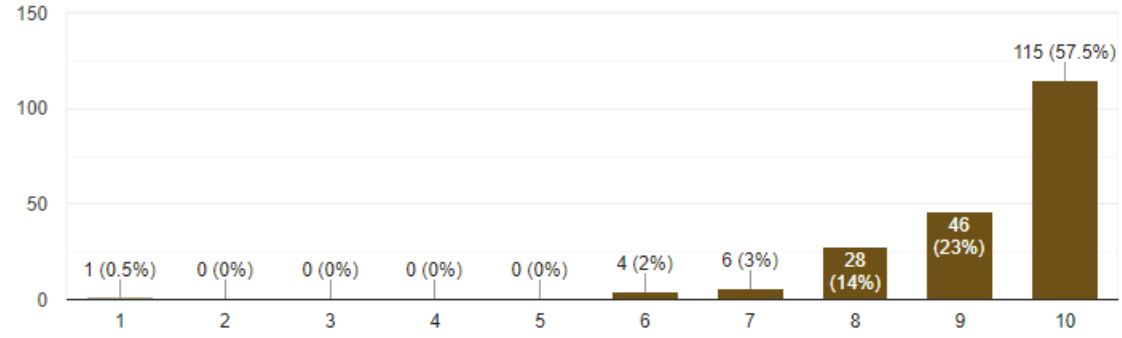
1. Your experience about the course.

200 responses



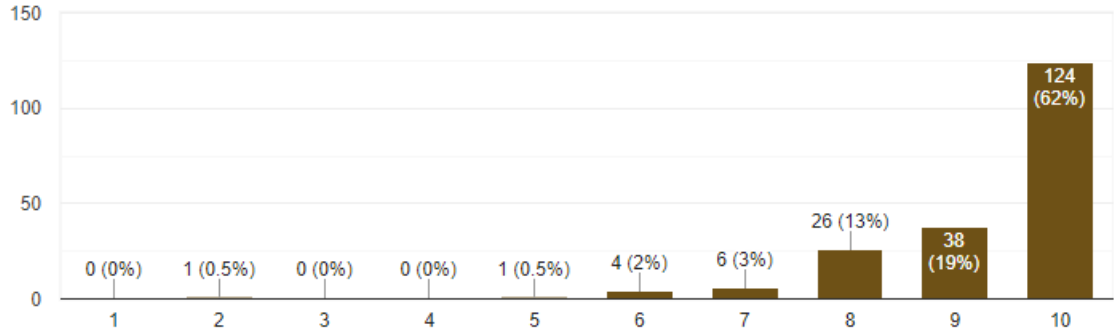
2. Knowledge enhancement.

200 responses



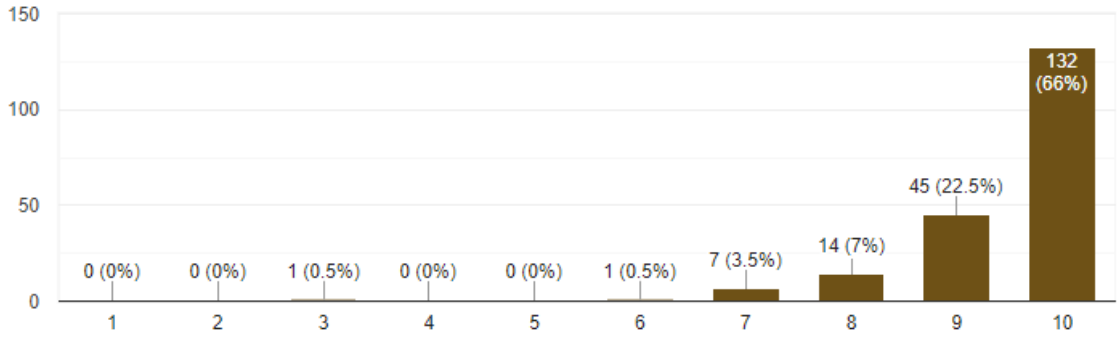
3. Relevancy of topics

200 responses



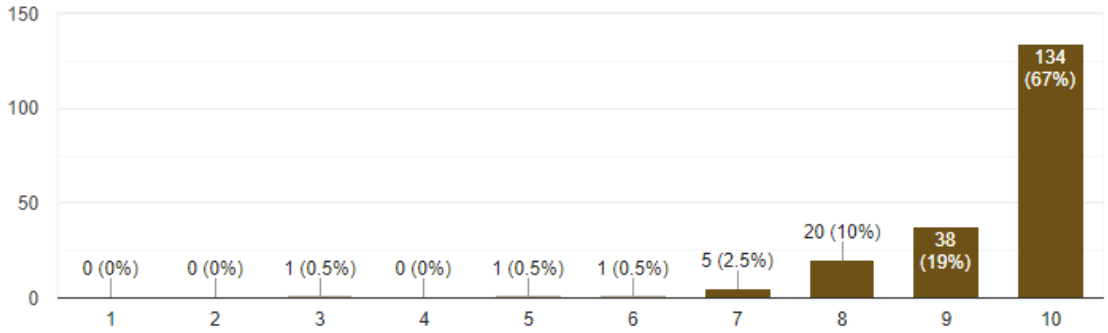
4. About speakers.

200 responses



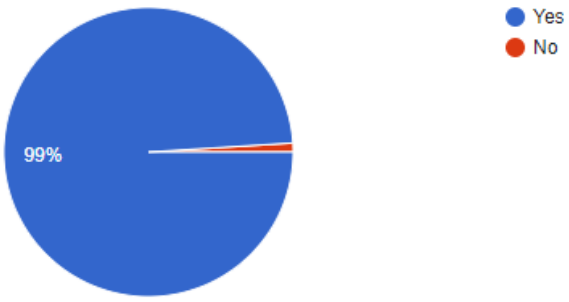
5. General Arrangement

200 responses



6. In future you want to attend such course at this Institute (SKIT, Jaipur).

200 responses



7. Topic that can be covered in the next course?

200 responses

AI

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Yes

-

Good

Wind energy

Any

5G

IoT

8. Knowledge gained by the course.

200 responses

Yes

Good

Excellent

Excellent

good

Very good

yes

Great

-

9. Overall experience of the course.

200 responses

Good

Excellent

Excellent

Nice

Very good

good

Great

Very good

Very Good

10. Suggestions

200 responses

No

Nil

no

Good

NA

Excellent

.

Nothing

NO